Biological Technical Report for the Emery Road Realignment Project, San Diego County, California

Prepared for

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Glossary of Terms and Acronyms

ACOE	U.S. Army Corps of Engineers
APE	Area of Potential Effect
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CNPS	California Native Plant Society
CNDDB	California Natural Diversity Database
CTMP	Community Trails Master Plan
CSS	Coastal sage scrub
CWA	Clean Water Act
County	County of San Diego
GPS	Global Positioning System
HCP	Habitat Conservation Plan
MBTA	Migratory Bird Treaty Act
MSCP	Multiple Species Conservation Program
NCCP	Natural Communities Conservation Plan
NRCS	Natural Resource Conservation Service
NWP	Nationwide Permit
RPO	Resource Protection Ordinance
RWQCB	Regional Water Quality Control Board

SanGIS	San Diego Geographic Information Source
SWRCB	State Water Resources Control Board
SRP	Sweetwater Regional Park
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
USFWS	U.S. Fish and Wildlife Service

Summary

The proposed project is a realignment of an existing dirt road. The County of San Diego proposes to straighten and widen the existing 0.25-mile road section by cutting a new alignment through the small, rocky ridge that the current road circumvents. In addition, the project would result in the construction of two new culverts to serve the realigned roadway.

The initial grading activities associated with the proposed project will potentially result in impacts to common amphibian and reptile species. However, the impacts will disturb a relatively small amount of habitat and are expected to impact a small number of individuals. The proposed project is not expected to result in impacts to common bird or mammal species, as these species are highly capable of dispersing. Therefore, impacts to general wildlife are considered less than significant. Three sensitive wildlife species—red-shouldered hawk, Belding's orange-throated whiptail, and quino checkerspot butterfly—were observed within the survey area. Potential impacts to sensitive wildlife species are discussed in Section 1.4.7. Avoidance measures and detailed mitigation discussed in Section 3.4 would reduce impacts to a level of less than significant.

Vegetation within the assessment area is complex in proportion to its small size, reflecting topography, transitional elevation, and land use. Upland vegetation in the northern half of the area consists of scrub types, whereas that in the lower, flatter southern half consists of disturbed types from historical conversion to agriculture. Vegetation along the creek is a mixture of riparian types. The complexity of the local vegetation was enhanced by the non-uniform effects of the fall 2007 Harris Fire, which originated just several miles to the north. Vegetation is described in greater detail in Section 1.4.2.

A total of 1.408 acres of vegetation communities or land cover types will be permanently impacted by the proposed project. Within the impact areas, five sensitive vegetation communities, including 0.015 acre of southern coast live oak riparian forest, 0.002 acre of non-vegetated channel, 0.035 acre of open coast live oak woodland, 0.375 acre of coastal sage-chaparral scrub, and 0.033 acre of disturbed Diegan coastal sage scrub, will be permanently impacted. The project will temporarily impact 0.003 acre of non-vegetated channel. Permanent impacts to southern coast live oak riparian forest, non-vegetated channel, and open coast live oak woodland will be mitigated at a ratio of 3:1 for a total required mitigation of 0.156 acre.

Permanent impacts to coastal sage-chaparral scrub and disturbed Diegan coastal sage scrub will be mitigated at a ratio of 2:1 for a total required mitigation of 0.816 acre. All temporary impacts to sensitive vegetation communities will be mitigated at a ratio of 1:1 for a total required mitigation of 0.003 acre. Areas permanently impacted by project

implementation would require mitigation in the form of on-site creation, enhancement, restoration, or purchase of off-site mitigation credits. Any acreage of the mitigation requirement not satisfied on-site would be required to be mitigated off-site. Temporary impacts will be mitigated through on-site restoration. The sensitive vegetation communities will be restored through revegetation or enhancement of the impacted areas following completion of project construction.

The proposed project would permanently impact 0.002 acre (86 linear feet) of ACOE jurisdictional non-wetland waters (Table 3). Temporary impacts to ACOE non-wetland waters would total 0.003 acre (93 linear feet). No permanent or temporary impacts are expected to occur to ACOE wetlands. Permanent impacts to CDFG jurisdictional resources total 0.002 acre (86 linear feet) of streambed and 0.015 acre (73 linear feet) of riparian habitat. Temporary impacts to CDFG jurisdictional resources would total 0.003 acre (93 linear feet). No temporary impacts are expected to occur to riparian habitat. Impacts to jurisdictional resources on-site would require a 404 Nationwide Permit, a 1600 Streambed Alteration Agreement from CDFG, and a 401 certification from the California RWQCB. Authorized impacts to jurisdictional resources would require mitigation through habitat creation, enhancement, or preservation to achieve a no-net-loss of jurisdictional resources, as determined by a qualified restoration specialist in consultation with the regulatory agencies. The expected mitigation ratio for permanent impacts to non-wetland waters/streambed and wetlands/riparian habitat is 1:1; therefore, 0.032 acre of mitigation may be required.

Adherence to the recommended mitigation measures discussed in this report would ensure the proposed project would not significantly conflict with any local policies or ordinances protecting biological resources or with the provisions of an adopted habitat conservation plan (HCP), Natural Community Conservation Plan (NCCP), or any other approved local, regional, or state habitat conservation plan.

1.0 Introduction

1.1 Purpose of the Report

The purpose of this report is to document the biological resources identified as present or potentially present on the proposed site for the Emery Road Realignment Project; identify potential biological resource impacts resulting from the proposed project; and recommend measures to avoid, minimize, or mitigate significant impacts consistent with federal, state, and local rules and regulations including the California Environmental Quality Act (CEQA) and the Multiple Species Conservation Program (MSCP) County of San Diego Subarea Plan (County of San Diego 1997).

The impact analysis and recommended mitigation measures in this document are based on the County of San Diego *Guidelines for Determining Significance and Report Format and Content Requirements* (2008), and are consistent with the County's MSCP.

1.2 Project Location and Description

The project area is located approximately one and one-half miles south of Highway 94 and approximately 0.75 mile northeast of the Tecate/Mexican border crossing (Figure 1). The survey area is shown on the U.S. Geological Survey (USGS) Potrero quadrangle, Sections 19 and 30, Township 18 South, Range 04 East (Figure 2). Figure 3 provides an aerial photograph of the construction limits (project area) and survey area. The survey area includes the southeastern terminus of a low, rocky ridge around which the current alignment of Emery Road curves. The survey area, east and west of Emery Road, is occupied by two western forks of an unnamed, south-flowing, USGS blue-line intermittent stream that join each other via a culvert beneath the road. In addition, shallow, upland ephemeral drainages occur in the northwest section of the survey area.

The proposed project is the realignment of an existing 0.25 mile section of Emery Road located approximately 0.10 mile north of Humphries Road. The County of San Diego ("County") proposes to straighten and widen the road in this section by cutting a new alignment through the small, rocky ridge that the current road circumvents. The new alignment of Emery Road would be wider (approximately 40 feet), but shorter than the existing dirt road (approximately 0.14 mile long). In addition, the proposed project would result in the construction of new culverts to serve the realigned roadway. These new culverts would be designed to preserve the existing course and flow of stormwater runoff within the project area.

1.3 Survey Methods

Existing data regarding biological resources within the survey area was obtained through a literature review of applicable reference materials and field reconnaissance. The primary objectives of the field surveys were to assess the existing conditions of the on-site biological resources. Fieldwork focused on four primary objectives: (1) vegetation mapping, (2) species inventory and assessment, (3) focused flight survey for Quino checkerspot butterfly (*Euphydryas editha quino*) (QCB), and (4) delineation of jurisdictional resources.

1.3.1 Vegetation Mapping

RECON biologists John Lovio and Mike Nieto surveyed the 12.9-acre survey area, which includes a 200-foot buffer around the project footprint, on November 7, 2008,

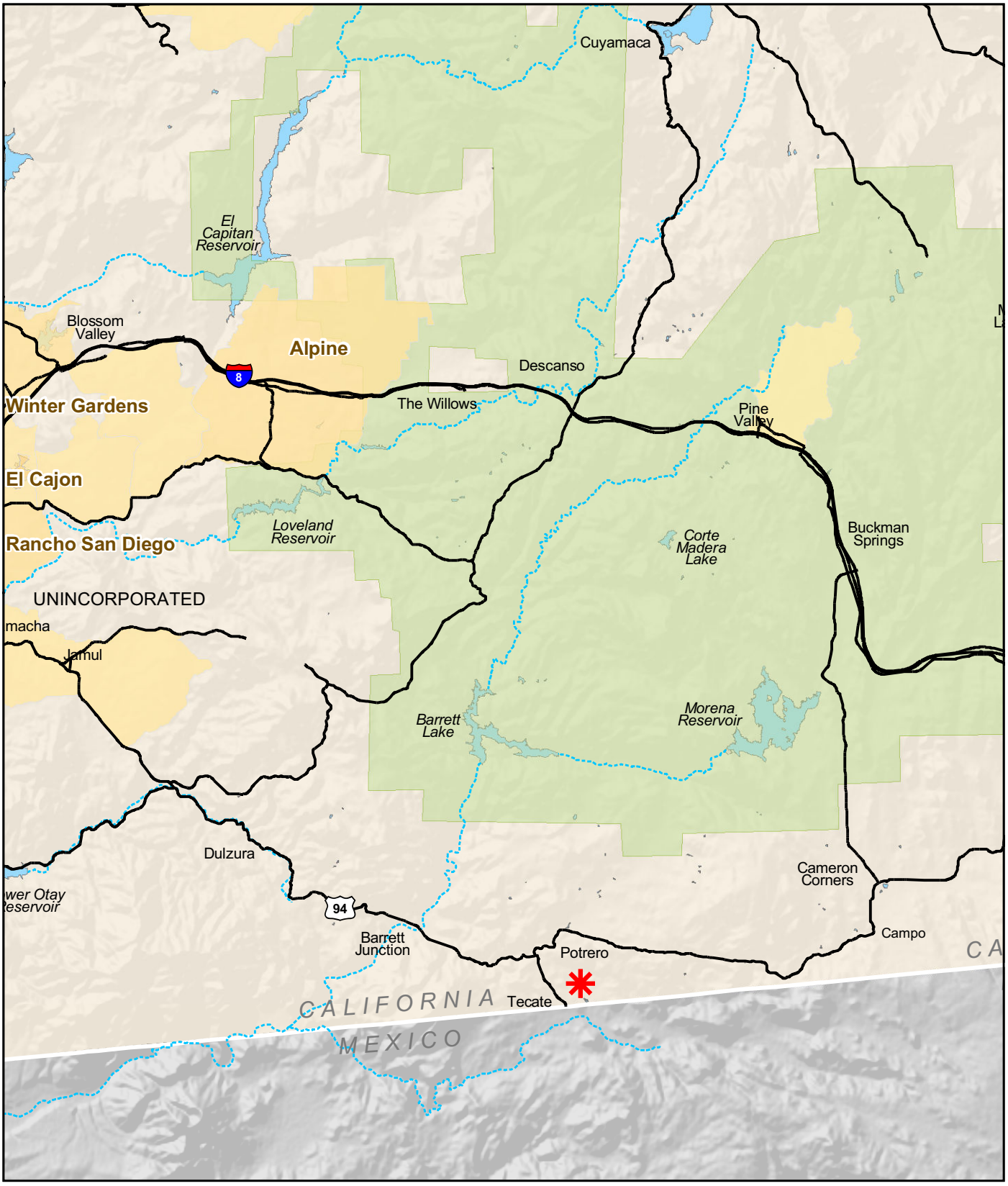

FIGURE 1
Regional Location of the
Emery Road Realignment Project

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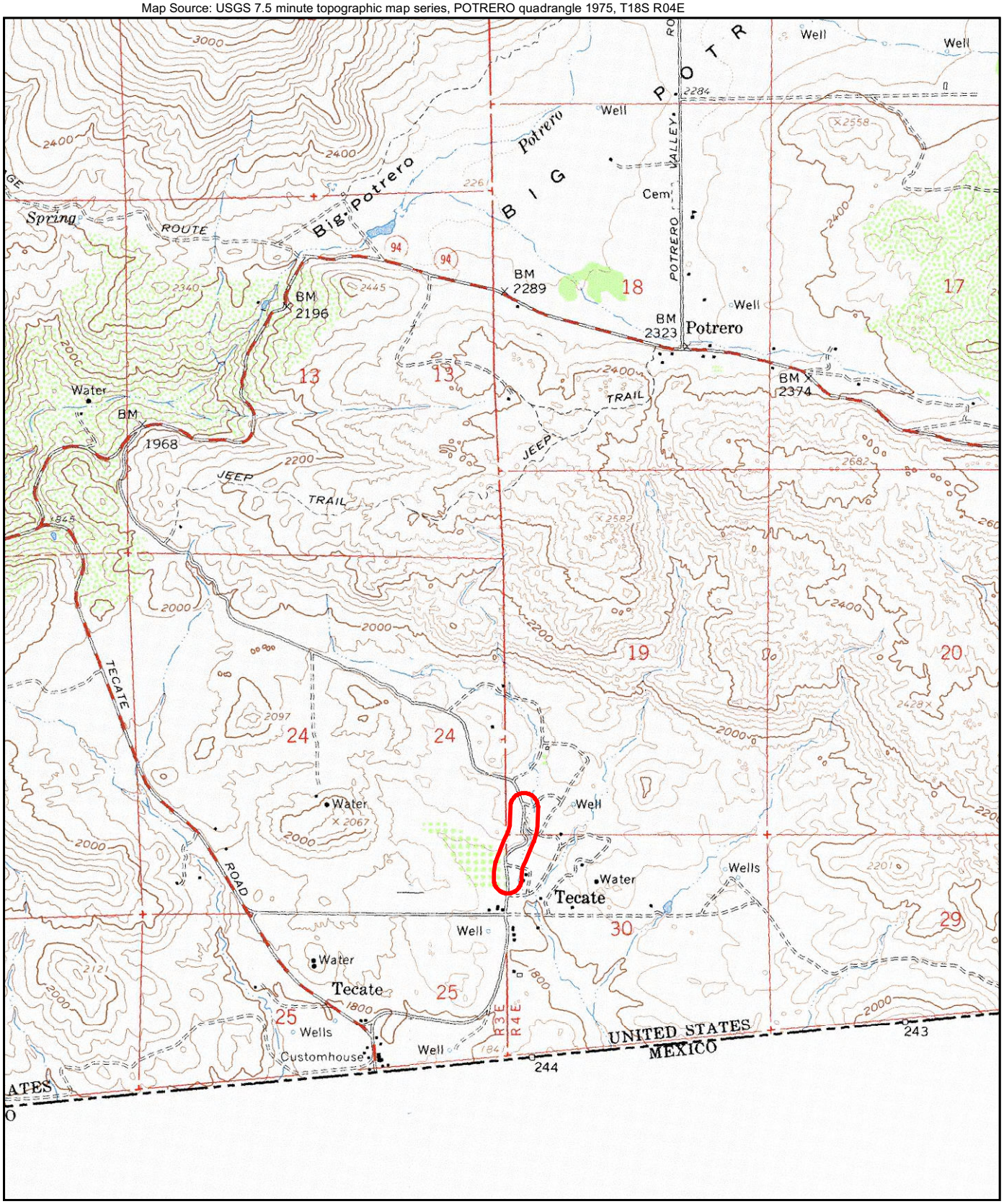
Map Source: USGS 7.5 minute topographic map series, POTRERO quadrangle 1975, T18S R04E



0 Feet 2,000

Survey Area

FIGURE 2
Emery Road Realignment
Project Location on USGS Map

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Image source: Copyright 2008 GlobeXplorer, All Rights Reserved (flown Jan 2008)

FIGURE 3

Emery Road Realignment Project
Location on Aerial Photograph

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under clear skies and Santa Ana wind conditions. Vegetation communities and land cover types present were mapped on a 1-inch-equals-200-feet (1:2400) topographic map overlaying an aerial photograph of the site (see Figure 3). The biologists covered all portions of the survey area on foot. Vegetation community classifications follow Holland (1986) as modified by Oberbauer (2005).

1.3.1.1 Flora

All biological resources within the survey area were recorded and mapped according to the County's biological resource mapping requirements (County of San Diego 2008). All plant species observed on the property were noted, and plants that could not be identified in the field were identified later using taxonomic keys. Floral nomenclature for common plants follows Hickman (1993) as updated by the Jepson Online Interchange (Jepson Flora Project 2008), and for sensitive plants follows the California Native Plant Society (CNPS; 2001). The survey included a directed search for sensitive plants that would have been apparent at the time of the survey, and the number of individuals observed was recorded. Limitations to the compilation of a comprehensive floral checklist were imposed by seasonal factors. The survey was conducted late in the dry season and vegetation was near peak dormancy.

1.3.1.2 Fauna

Animal species were observed directly or detected from calls, tracks, scat, nests, or other sign were noted. The wildlife survey was limited by autumn seasonal and temporal factors. Additionally, the survey was performed during the day; therefore, nocturnal animals that were apparent during the time of the survey were identified by sign. Zoological nomenclature is in accordance with the American Ornithologists' Union Checklist (1998) and Unitt (2004) for birds, Baker et al. (2003) and Hall (1981) for mammals, Crother (2001) and Crother et al. (2003) for amphibians and reptiles, and Mattoni (1990) and Opler and Wright (1999) for invertebrates.

1.3.2 Species Inventory and Assessment

Habitat assessments were conducted by John Lovio and Mike Nieto on November 7, 2008 to determine the potential for the survey area to be occupied by federally- or state-listed species. The site was surveyed, and determinations were made as to the suitability of the habitats in the survey area to support federally- or state-listed wildlife and plant species.

Determination of the potential occurrence for listed, sensitive, or noteworthy species is based upon known ranges and habitat preferences for the species (Zeiner et al. 1988, 1990a–c; State of California 2009a–d; CNPS 2001), species occurrence records from the California Natural Diversity Data Base (CNDDB) (State of California 2009e), and

existing topography and soils within the survey area (USGS 1975; U.S. Department of Agriculture [USDA] 1973).

1.3.3 Focused Quino checkerspot butterfly Survey

Protocol adult flight season surveys for QCB were conducted within the survey area by RECON biologists Brenna Ogg (U.S. Fish and Wildlife Service [USFWS] permit TE-134338), and John Lovio (USFWS permit TE-065741). Flight surveys were conducted on March 4, 13, 18, and 26 and April 1, 2009, in accordance with the *Quino Checkerspot Butterfly (Euphydryas editha quino) Year 2002 Survey Protocol* (USFWS 2002a). All potentially suitable QCB habitat was surveyed on foot, and all butterfly species and blooming plant species were noted on each visit. The QCB 2009 Flight Season Survey Report was prepared as a separate document (RECON 2009a).

1.3.4 Jurisdictional Delineation

A routine wetland delineation, following the guidelines set forth by the ACOE (1987), was performed to gather field data at potential jurisdictional wetland sites in the survey area. The routine delineation fieldwork was conducted by RECON biologist, Jillian Bates, on March 17, 2009. Prior to conducting the delineation, historical aerial photographs and USGS topographic maps of the site were examined. Once on-site, the potential jurisdictional areas were examined to determine the presence of any jurisdictional wetlands. The remainder of the survey area was also examined in the field for the presence of potential waters of the U.S. The jurisdictional delineation report was prepared as a separate document (RECON 2009b).

1.4 Environmental Setting

1.4.1 Regional Context

The proposed project site is not located within the boundaries of the Multiple Species Conservation Program (MSCP) County of San Diego Subarea Plan.

The survey area is located within the northern portion of the Tijuana River Watershed. The Tijuana River Watershed drains 1,750 square miles, approximately 27 percent of which lies in San Diego County, California. It is bounded on the north by the Laguna Mountains in the U.S. and to the southwest by the Sierra Juárez in Mexico. Major tributaries are Cottonwood Creek and Pine Creek in the U.S., and the Río Las Palmas system in Mexico. The vegetation within the watershed ranges from chaparral to coastal sage scrub, with conifer forests in the mountains, riparian zones and vernal pools, and wetlands in the estuary.

1.4.1.1 Land Use

Land use in the surrounding valley and ridge terrain is largely passive preservation of natural scrub and riparian vegetation with localized disturbances associated with rural residences and commercial (e.g., truck container staging yards) and historic agricultural uses. Present human uses include construction and cleared yards. The area supports a relatively high density of rural, mostly unpaved roads and many trails.

1.4.1.2 Topography and Soils

The project site is located at elevations of approximately 1,810 to 1,920 feet above mean sea level (MSL). The survey area is approximately 12.9 acres. Four soil series—Cieneba, Las Posas, Visalia, and Wyman—are mapped within the survey area (USDA 1973). Soil types mapped within the survey area are described below. Information obtained from the following sources is summarized below for each of the four soil types: Soil Survey for San Diego County (USDA 1973), Soil Taxonomy (USDA 1975), and the local hydric soil list obtained from the Natural Resources Conservation Service (NRCS) (USDA 1995).

Cieneba rocky coarse sandy loam, 9 to 30 percent slope, eroded, occurs within the central portion of the survey area on a low ridge. Cieneba soils are shallow, excessively drained sandy loam similar to its decomposed granitic parent rock; they are characterized by rock outcrops or boulders that comprise 50 percent of the soil surface. The Cieneba soil is very dark grayish brown coarse sandy loam about 10 inches over weathered granitic rock. The soil is well to excessively drained, moderate to moderately rapidly permeable, and has rapid to very rapid runoff (USDA 1973).

The remainder of the survey area soils are relatively fine sandy loams associated with the 5 to 15 percent slopes of the valley bottom and drainages. Las Posas fine sandy loam, which occurs in the northwestern portion of the survey area, is dark brown and consists of moderately deep, well drained soils that formed in material weathered from basic igneous rocks (USDA 1973).

Wyman loam, associated primarily with the northernmost portion of the intermittent stream and ephemeral drainages northwest of the road, is dark brown and consists of deep, well-drained soils that formed in alluvium from andesitic and basaltic rocks (USDA 1973). The surface, 0 to 8 inches, is massive, and hard when dry; however, the soil between the depths of 8 and 18 inches becomes moist, slightly sticky, silt loam.

Visalia sandy loam (VaA), which composes nearly the entire southern half of the survey area, is very dark brown and consists of moderately well drained, very deep sandy loams derived from granitic alluvium. Runoff is slow to medium, and the erosion hazard slight to moderate (USDA 1973). The Visalia soil series is associated with valley bottom topography and is a hydric (wetland) soil (USDA 1995).

1.4.2 Vegetation Communities

Eight vegetation communities—disturbed southern riparian scrub, southern coast live oak riparian forest, open coast live oak woodland, coastal sage-chaparral scrub, disturbed Diegan coastal sage scrub (DCSS), scrub oak chaparral, eucalyptus woodland, and disturbed habitat—were identified within the survey area. Non-vegetated channel and urban/developed lands are also present within the survey area. Vegetation communities are summarized in Table 1 and illustrated on Figure 4.

TABLE 1
HABITAT TYPES/VEGETATION COMMUNITIES WITHIN THE EMERY ROAD REALIGNMENT SURVEY AREA (acres)

Type or Community (Holland Code as modified by Oberbauer)	Acres
Southern Coast Live Oak Riparian Forest (61310)	1.40
Disturbed Southern Riparian Scrub (63300)	0.32
Non-vegetated Channel (13200)	0.32
Open Coast Live Oak Woodland/Individuals (71161)	0.21
Coastal Sage-Chaparral Scrub (37G00)	3.38
Disturbed Diegan Coastal Sage Scrub (32520)	0.20
Scrub Oak Chaparral (37900)	0.11
Eucalyptus Woodland (11100)	0.20
Disturbed Habitat (12000)	3.03
Urban/Developed Lands (12000)	3.73
TOTAL	**12.9**

1.4.2.1 Southern Coast Live Oak Riparian Forest

Southern coast live oak riparian forests are open to locally dense riparian woodlands primarily dominated by coast live oak (*Quercus agrifolia*). It occurs in valley bottoms and outer floodplains along larger streams, in sandy soils or alluvium (Holland 1986).

A 1.40-acre area of southern coast live oak riparian forest is located along the east side of Emery Road and is associated with the well-developed, but typically narrow, portions of the streambed (Photograph 1). Other riparian tree species, such as Fremont cottonwood and arroyo willow, also occur in this community. Several large cottonwoods were killed above-ground by the 2007 fire, but are sprouting new shoots basally. This has contributed to the openness of parts of the riparian stand and may have also opened the understory to some extent. Tamarisk occurs in or adjacent to this

association in a few locations within the survey area, and riparian shrubs such as mule fat occasionally occur in the understory. In well-developed stands of the southern coast live oak riparian forest, poison-oak (*Toxicodendron diversilobum*) is a common understory constituent. Additionally, some scrub-oak (*Quercus berberidifolia*) and desert broom (*Baccharis sarothroides*) occur as part of the southern coast live oak riparian forest component.

1.4.2.2 Disturbed Southern Riparian Scrub

Southern riparian scrub is a dense riparian community dominated by broad-leaved, winter-deciduous trees such as willows (*Salix* spp.), and often scattered with Fremont cottonwoods (*Populus fremontii*) and sycamores (*Platanus racemosa*). This plant community is typically found along major tributaries, but also occurs in smaller drainages. The density of the willows typically prevents a dense understory of smaller plants from growing. The representative species typically grow in loose, sandy, or fine gravelly alluvium deposited near stream channels during flood flows. This community requires repeated flooding to prevent succession to a community dominated by sycamores and cottonwoods (Holland 1986).

A small 0.32-acre patch of southern riparian scrub is present within the northeastern portion of the survey area. The vegetation is dominated by arroyo willow (*Salix lasiolepis*), mule fat (*Baccharis salicifolia*), and curly dock (*Rumex crispus*), with an occasional occurrence of non-native tamarisk (*Tamarix* sp) (Photograph 2).

1.4.2.3 Non-Vegetated Channel

The 0.32 acre streambed is primarily classified as non-vegetated channels that present riparian habitat or upland vegetation above the ordinary high water mark (Photograph 3).

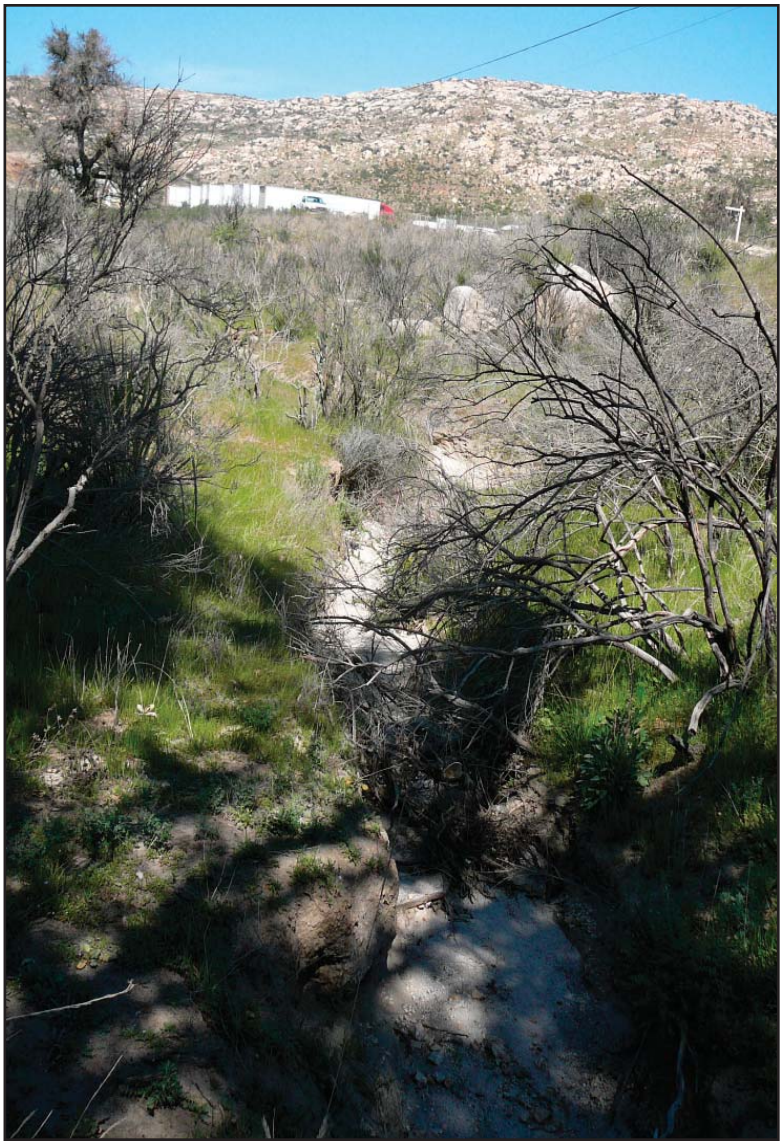
1.4.2.4 Open Coast Live Oak Woodland/Individuals

Coast live oak woodland is a vegetation community defined as having one primary tree, coast live oak, as the dominant species of the community. Coast live oak woodlands are present in the coastal slopes of southern California and are typically found on north-facing slopes and shaded ravines in the south and more exposed sites in the north. This plant community occurs in the outer South Coast Ranges and on coastal slopes of Transverse and Peninsular ranges, usually below 4,000 feet (Holland 1986).

Sparse patches of coast live oak woodland, totaling 0.21 acre, occur within the Diegan coastal sage scrub and coastal sage-chaparral scrub habitat described below.

PHOTOGRAPH 1
Emery Road with Southern Coast Live Oak Riparian Forest to the East and Coastal Sage-Chaparral Scrub to the West, Facing South

PHOTOGRAPH 2
Disturbed Southern Riparian Scrub within Emery Road Realignment Survey Area, Facing East



PHOTOGRAPH 3
Non-vegetated Upland Drainage West of Emery Road,
Facing North

1.4.2.5 Coastal Sage-Chaparral Scrub

Coastal sage–chaparral scrub is a vegetation community containing a mix of woody chaparral species and drought-deciduous sage scrub species. The community is an intermediate between coastal scrubs and chaparrals and may be a post-fire successional community in some areas. This vegetation type is found from the outer Coast Ranges and Peninsular Range from Big Sur south to Baja California (Holland 1986).

A total of 3.38 acres of coastal sage-chaparral scrub was present in the survey area. Within the northwest portion of the project survey area, the vegetation ranges from coastal sage-chaparral scrub dominated by chamise (*Adenostoma fasciculatum*), scrub-oak, spiny redberry (*Rhamnus crocea*), and yucca (*Yucca schidigera*) on the gradual east-facing slope north of the ridge, to co-dominance by spiny redberry and bush penstemon (*Keckiella antirrhinoides*) with chaparral whitethorn (*Ceanothus leucodermis*) on the rocky ridge (see Photograph 2).

All of the survey area west of the road was burned intensely by the Harris Fire in the fall of 2007, which has significantly reduced the vegetation volume. Site inspection and a comparison of pre- and post-fire aerial photographs indicate a typical reduction in the overall stature and relative ground cover of woody vegetation as a result of the burn. However, the ensuing vegetation recovery following the 2007-2008 and 2008-2009 rainy seasons appears to be variable and likely related to variation in the pre-fire vegetation conditions. Currently, portions of the south face of the rocky ridge remain open and disturbed, with predominantly non-native herbaceous vegetation and little (less than 10 percent) woody cover. The top and north side of the ridge appears to be recovering to its pre-fire composition, as described above. The presence of a high proportion of yucca and the diverse, largely native herbaceous vegetation (including dot-seed plantain [*Plantago erecta*]) on the relatively flat terrain north of the ridge indicates that this area of chaparral was relatively open prior to the fire. The condition of many shrubs in this northwestern portion of the survey area indicates that the area was only lightly and discontinuously burned in 2007 and may have been recovering from an earlier fire. The apparent trajectory of this vegetation is toward recovery of chaparral.

Small patches of coastal sage–chaparral scrub east of the road and along the embankments of the drainage (see Figure 4) were not burned in the 2007 fire and likely represent the recovered state of vegetation east of the road.

1.4.2.6 Disturbed Diegan Coastal Sage Scrub (DCSS)

DCSS is the southern form of coastal sage scrub and is a plant community comprising low-growing, aromatic, drought-deciduous, soft-woody shrubs that have an average height of approximately 3 to 4 feet. The plant community is typically dominated by facultatively drought deciduous species such as California sagebrush (*Artemisia*

californica), California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), and white sage (*Salvia apiana*). The community typically is found on low moisture-availability sites with steep, xeric slopes or clay rich soils that are slow to release stored water. These sites often include drier south- and west-facing slopes and occasionally north-facing slopes, where the community can act as a successional phase of chaparral development. DCSS intergrades at higher elevations with several types of chaparrals, or in drier, more inland areas with Riversidean Sage Scrub. DCSS is found in coastal areas from Los Angeles County south into Baja California (Holland 1986).

Several small patches of of DCSS (totaling 0.20 acres) dominated by California sagebrush, flat-topped buckwheat, and an infusion of non-native, herbaceous ruderal vegetation ("disturbed habitat") occur east of Emery Road, in the center of the survey area. These patches were not burned in the 2007 Harris Fire.

1.4.2.7 Scrub Oak Chaparral

Scrub oak chaparral is plant community dominated by a dense, evergreen chaparral that typically grows to 20 feet and is dominated by Nuttall's scrub oak (*Quercus dumosa*) with considerable mountain-mahogany (*Cercocarpus betuloides*). This chaparral community is somewhat more mesic than many chaparrals and often occurs at slightly higher elevations of up to 5,000 feet. Substantial leaf litter accumulates in this habitat. Scrub oak chaparral occurs from the Western Sierra foothills and North Coast range from Tehama County south through the southern California mountains and Baja California (Holland 1986).

A 0.11-acre area of scrub oak chaparral occurs within the northeast portion of the survey area. This upland vegetation community abuts the southern border of the southern riparian scrub east of Emery Road. This patch was not burned in the 2007 Harris Fire.

1.4.2.8 Eucalyptus Woodland

Eucalyptus trees (*Eucalyptus* sp.) are not native to the area and are considered invasive species because of their rapid growth rate, broad cover, and allelopathic chemicals contained in their leaf litter that prevents understory species from growing. Once established, eucalyptus groves often form dense canopies that displace native habitats over time. A 0.20-acre stand of eucalyptus occurs within the southernmost tip of the survey area, east of Emery Road amid the southern coast live oak riparian forest.

1.4.2.9 Disturbed Habitat

Disturbed habitat is a term primarily used to identify areas where severe impacts to natural communities have occurred to the extent that these areas sustain primarily non-native plant species and generally do not constitute functional habitat. Disturbed habitat,

totaling 3.03 acres, within the survey area includes the sparse, recovering scrub vegetation mixed with herbaceous non-native vegetation that borders the edges of the southern riparian scrub and southern coast live oak riparian forest. In addition, vegetation south of the ridge and west of Emery Road exhibiting evidence of historical agricultural activity is also considered disturbed habitat. Dominant plants observed within the non-native vegetation included rancher's fiddleneck (*Amsinckia menziesii*), and red stemmed filaree (*Erodium cicutarium*).

1.4.2.10 Urban/Developed Land

The unpaved roadway (Emery Road), rural residences, and commercial lots within the survey area, totaling 3.73 acres, are mapped as urban/developed land (see Figures 5). Ornamental plants such as oleander (*Nerium oleander*), Washington fan palm (*Washingtonia robusta*.), and Brazilian pepper-tree (*Schinus molle*) occur within the urban/developed land.

1.4.3 Flora

A total of 74 plant species were identified in the survey area (Attachment 1). Of this total, 54 (73 percent) are species native to southern California and 20 (27 percent) are introduced species. In addition, one sensitive species, sticky geraea (*Geraea viscida*), was observed within the survey area and is discussed in Section 1.4.6.

1.4.4 Fauna

A complete list of the wildlife species detected is provided in Attachment 2. The potential for sensitive species to occur within the survey area is discussed in Section 1.4.7 of this report.

1.4.4.1 Butterflies

The distribution of butterflies is generally defined by the distribution of their larval food plants. Species common to urban and riparian communities are expected to be the most common butterfly species within the survey area. Common butterfly species observed within the survey area include western tiger swallowtail (*Papilio rutulus*), common white (*Pontia protodice*), sara orangetip (*Anthocaris sara*), and painted lady (*Vanessa cardui*). In addition, the federally listed endangered Quino checkerspot butterfly was observed within the survey area and is discussed in Section 1.4.7.1. A complete list of butterfly species observed within the survey area is included in Attachment 2.

1.4.4.2 Amphibians

Amphibians require moisture for at least a portion of their life cycle, with many requiring a permanent water source for habitat and reproduction. Terrestrial amphibians have adapted to more arid conditions and are not completely dependent on a perennial or standing source of water. These species avoid desiccation by burrowing beneath the soil or leaf litter during the day and during the dry season.

No amphibians were observed during the surveys. Common species, such as Pacific treefrog (*Pseudacris regilla*), have a low potential to occur within the survey area due to the lack of water within the creek bed.

1.4.4.3 Reptiles

The diversity and abundance of reptile species vary with habitat type. Many reptiles are restricted to certain vegetation communities and soil types, although some of these species will also forage in adjacent communities. Other species are more ubiquitous, using a variety of vegetation types for foraging and shelter.

Two common reptile species were observed during surveys, common western fence lizard (*Sceloporus occidentalis*) and common side-blotched lizard (*Uta stansburiana*).

1.4.4.4 Birds

The diversity of bird species varies with respect to the character, quality, and diversity of vegetation communities present. Vegetation within the survey area is complex and the mixture of scrub vegetation with riparian habitat, disturbed lands, and urban/developed lands support a high diversity of bird species.

The bird species detected on-site are typical of those found within Diegan coastal sage scrub and costal sage-chaparral scrub, and include spotted towhee (*Pipilo maculates*), Bewick's wren (*Thryomanes bewickii*), and California towhee (*Pipilo crissalis)*. Common species detected within the riparian corridor include yellow-rumped warbler (*Dendroica coronata*) and Anna's hummingbird (*Calypte anna*). Commonly observed species within the disturbed and urban/developed habitats include house finch (*Carpodacus mexicanus frontalis*), common raven (*Corvus corax clarionensis*), and lesser goldfinch (*Carduelis psaltria hesperophilus*). In addition, several species typical of woodland habitats, such as, western scrub jay (*Aphelocoma californica*), were observed. A total of 12 avian species were detected within the survey area, and are listed in Attachment 2.

1.4.4.5 Mammals

Mammal species detected are those that are typically found in urban or riparian communities within San Diego County. Two common species, cottontail rabbit

(*Sylvilagus audubonii*) and California ground squirrel (*Spermophilus beecheyi*), were detected within the survey area.

1.4.5 Sensitive Vegetation Communities

The sensitivity status of vegetation communities is determined by criteria including restricted range, cumulative losses throughout the region, and a high number of endemic sensitive plant and wildlife species that occur in the vegetation communities. These communities are considered sensitive whether or not they have been disturbed.

The following vegetation communities identified within the survey area are considered sensitive by Holland (1986), or the State of California (2009e): disturbed southern riparian scrub, southern coast live oak riparian forest, open coast live oak woodland, coastal sage-chaparral scrub, disturbed Diegan coastal sage scrub, and scrub oak chaparral. Non-vegetated channel is also considered sensitive by local, state, and federal resource agencies. Table 1 above shows the acreages of these vegetation communities within the survey area.

1.4.6 Sensitive Plant Species

As mentioned previously, conditions during the November 07, 2008 biological resource survey were not conducive to identification of all potentially sensitive plants, due to the prevailing dry season state of the vegetation. The initial floral inventory (see Attachment 1) found existing sensitive plant species and botanical evidence which suggested the presence of additional sensitive plant species, including sticky geraea, Tecate tarplant (*Deinandra floribunda*), and Rush-like bristleweed (*Machaeranthera juncea*).

1.4.6.1 Plant Species Observed

Sticky geraea (*Geraea viscida*). Sticky geraea is a CNPS List 2 and a County of San Diego List B species. It is a short-lived perennial in the sunflower family (Asteraceae) that produces showy yellow flowers in May and June. Sticky geraea is distributed in southeastern San Diego and southwestern Imperial Counties and Baja California (CNPS 2001). It is found on dry chaparral slopes between 2,000 to 4,000 feet elevation (Munz 1974), most commonly with chamise as the dominant shrub. It often occurs in dry, sandy areas, and is sometimes found in disturbed areas. This species may respond favorably after moderate fire exposure (Reiser 2001).

A cluster of five sticky geraea was found in a flat area adjacent to the disturbed land on the southwest face of a rocky ridge west of the road. The large, conspicuous perennials were found on a slight south facing slope in sandy soil between two fingers of a boulder outcrop.

1.4.6.2 Plant Species Not Observed with Potential to Occur

Tecate tarplant (*Deinandra floribunda*). Tecate tarplant is a CNPS (2001) List 1B and a County of San Diego List A species. This annual herb in the sunflower family (Asteraceae) ranges from San Diego County into Baja California, and occurs in coastal sage scrub and chaparral habitats between 1,000 feet and 2,400 feet. It is found primarily in dry valleys and foothills, but sandy washes in the high desert are its preferred habitat. This species may be distinguished from other tarplant species found in the region by having 13-20 ray flowers, which appear from August to October.

Desiccated stalks of tarplant were found in the northeast corner of the survey area amid disturbed southern riparian scrub, on the east side of Emery Road. Due to the proximity of other Tecate Tarplant populations (according to CNDDB), proper soil conditions, and forensic evidence from the stalks, there is a high probability that these tarplant stalks are Tecate Tarplant. Additional surveys are scheduled to specifically identify this plant in accordance with its floristic phenology. The stalks were found outside of the APE line. No potential Tecate tarplant stalks were found within the APE line.

Rush like bristleweed (*Machaeranthera juncea* [=*Haplopappus junceus*]). Rush like bristleweed is a CNPS (2001) List 4 species. This herbaceous perennial shrub in the sunflower family (Asteraceae) grows from 1 to 3 feet tall and flowers from June to January (Hickman 1993, CNPS 2001). It ranges from Sonora and Baja California, Mexico north to Arizona and San Diego County (CNPS 2001). Habitat for rush-like bristleweed is dry hillsides in coastal scrub and chaparral from 800 to 3,300 feet elevation (CNPS 2001, Hickman 1993); in San Diego, it prefers rocky, exposed locations in dry, low chamise chaparral or coastal sage scrub (Reiser 2001). This inconspicuous plant may often be overlooked because of its late flowering period.

A potential rush like bristleweed was identified during the November 2008 survey effort at the base of the north slope of the small ridge west of Emery Road. It occurred in post-burn coastal sage-chaparral adjacent to a large coast live oak tree. There is a high probability that this individual is rush-like bristleweed. A final identification will be made during focused surveys scheduled in accordance with its floristic phenology.

1.4.7 Sensitive Wildlife Species

Three sensitive wildlife species—red-shouldered hawk, Belding's orange-throated whiptail, and quino checkerspot butterfly—were observed within the survey area.

1.4.7.1 Wildlife Species Observed

Red-shouldered hawk (*Buteo lineatus elegans*). Raptors and active raptor nests are protected by CDFG Code 3503 (State of California 1991). One adult red-shouldered

hawk (*Buteo lineatus elegans*) was observed flying overhead during the surveys. The palm, eucalyptus, and coast live oak trees within the survey area and within the proposed project site provide suitable nesting and roosting habitat for this species and other tree-nesting raptor species. However, at the time of the survey, no nests were observed within the survey area.

Belding's orange-throated whiptail (*Aspidoscelis hyperythrus beldingi*). Belding's orange-throated whiptail is a CDFG species of special concern and HMP covered species. This lizard occurs from southwestern San Bernardino County south into Baja California at elevations from sea level to 3,500 feet. Belding's orange-throated whiptail frequents areas of open coastal sage scrub, chaparral, and streamside growth with loose sandy soils (Stebbins 1985). Belding's orange-throated whiptail typically hibernates during winter, emerging in February or March, but can be active year-round providing that temperatures are warm (Jennings and Hayes 1994). Breeding occurs from May through July. Belding's orange-throated whiptail feeds primarily on insects such as termites (*Reticulitermes* sp.). The decline of this species is attributed to the loss of coastal sage scrub in southern California.

This individual was observed within the northwestern portion of the coastal sage-chaparral scrub, west of Emery Road.

Quino checkerspot butterfly (*Euphydryas editha quino*). The QCB is federally listed as endangered species. The historic range of the QCB includes the coastal plain and inland valleys of southern California from the Santa Monica Mountains south to northern Baja California. Currently, the species is known from southern San Diego County and southwestern Riverside County. QCBs occur at several locations on Otay Mesa and Jacumba in San Diego and near Murrieta and Temecula and eastward to Hemet and Anza in Riverside (USFWS 1997). The distribution of the QCB is primarily defined by the distribution of its principal host plant, dot-seed plantain (*Plantago erecta*). Female QCBs have also been observed depositing eggs on woolly plantain (*Plantago patagonia*), white snapdragon (*Antirrhinum coulterianum*), and thread-leaved bird's beak (*Cordylanthus rigidus*) (USFWS 2002). It is possible that members of the figwort family (Scrophulariaceae), including purple owl's clover (*Castilleja exserta*), are also used (Brown 1991; Mattoni et al. 1997). Threats to this species include habitat loss, fragmentation, and habitat type conversion. In April 2002, the USFWS designated critical habitat for the quino checkerspot butterfly in portions of San Diego and Riverside Counties (USFWS 2002).

Potential habitat conditions for the federally endangered QCB occur within the assessment area. There is sparse woody vegetation with intervening, low herbaceous plant growth that includes at least two of the known larval host plants: dot-seed plantain and purple owls' clover. Records from the CNDDB (State of California 2009e) indicate two known locations of this butterfly from within 1 mile (west and south) of the Emery

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Survey Area

Project Area

Sensitive Species

Orange-throated Whiptail *(Aspidoscelis hyperythra)*

Quino Checkerspot Butterfly *(Euphydryas editha quino)*

Sticky Geraea *(Geraea viscida)*

Rush-like Bristleweed *(Machaeranthera juncea)*

Tecate Tarplant *Deinandra floribunda)*

Vegetation Communities

Coastal Sage - Chaparral Scrub

Disturbed Diegan Coastal Sage Scrub

Disturbed Habitat

Disturbed Southern Riparian Scrub

Eucalyptus Woodland

Non-vegetated Channel

Open Coast Live Oak Woodland / Individuals

Scrub Oak Chaparral

Developed

Southern Coast Live Oak Riparian Forest

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FIGURE 4

Existing Biological Resources within the Project Survey Area

Road biological assessment area. A focused flight survey was conducted within the area between March 4 and April 1, 2009.

One QCB was documented on the March 04, 2009 survey. This individual was observed within the southern portion of the coastal sage-chaparral scrub west of Emery Road and was approximately 500 feet south of the large patch of dot-seed plantain. (RECON 2009b). No additional QCB were observed during the remaining four surveys, and none were observed in either the primary or secondary host plant patches. The single sighting of a lone individual may have been attributable to drift from a local breeding site; therefore, this site is presumed unoccupied by QCB.

1.4.8 Wetlands/Jurisdictional Waters

All wetlands and non-wetland jurisdictional waters of the U.S. are considered sensitive. ACOE regulates the discharge of dredge or fill material into waters of the U.S. (wetlands and non-wetland jurisdictional waters) in accordance with Section 404 of the federal Clean Water Act (CWA).

Streambeds fall under the jurisdiction of CDFG (Section 1600 of the California Fish and Game Code). Under Sections 1600–1607 of the Fish and Game Code, CDFG regulates activities that would alter streams, rivers, or lakes. CDFG also has jurisdiction over riparian habitats (e.g., southern willow scrub) associated with watercourses. Areas considered jurisdictional by CDFG extend to the outer edge of riparian vegetation, at the top of the bank of streams or lakes, or as far as the associated floodplain, whichever is wider.

A total of 0.67 acre (3,295 linear feet) of ACOE jurisdictional resources was delineated within the survey area. Wetland sites, which total 0.32 acre, exhibited positive indicators of each of the three criteria: hydrophytic vegetation, hydric soils, and wetland hydrology. The remainder of the ACOE jurisdictional resources have been delineated as non-wetland waters of the U.S., totaling 0.35 acre.

CDFG jurisdictional resources were also delineated on-site. CDFG jurisdiction totals 2.07 acres, which includes the 0.67 acre of ACOE wetlands and non-wetland waters and an additional 1.40 acres of riparian habitat occurring above the ordinary high water mark.

The Regional Water Quality Control Board (RWQCB) takes jurisdiction over all waters of the state and all waters of the U.S. as mandated by both the federal CWA and the California Porter-Cologne Water Quality Control Act. Therefore, a total of 2.07 acres of the survey area is within the RWQCB jurisdiction.

Table 2 summarizes the jurisdictional determination within the survey area. Figures 5 and 6 identify the locations of the jurisdictional areas according to ACOE and CDFG

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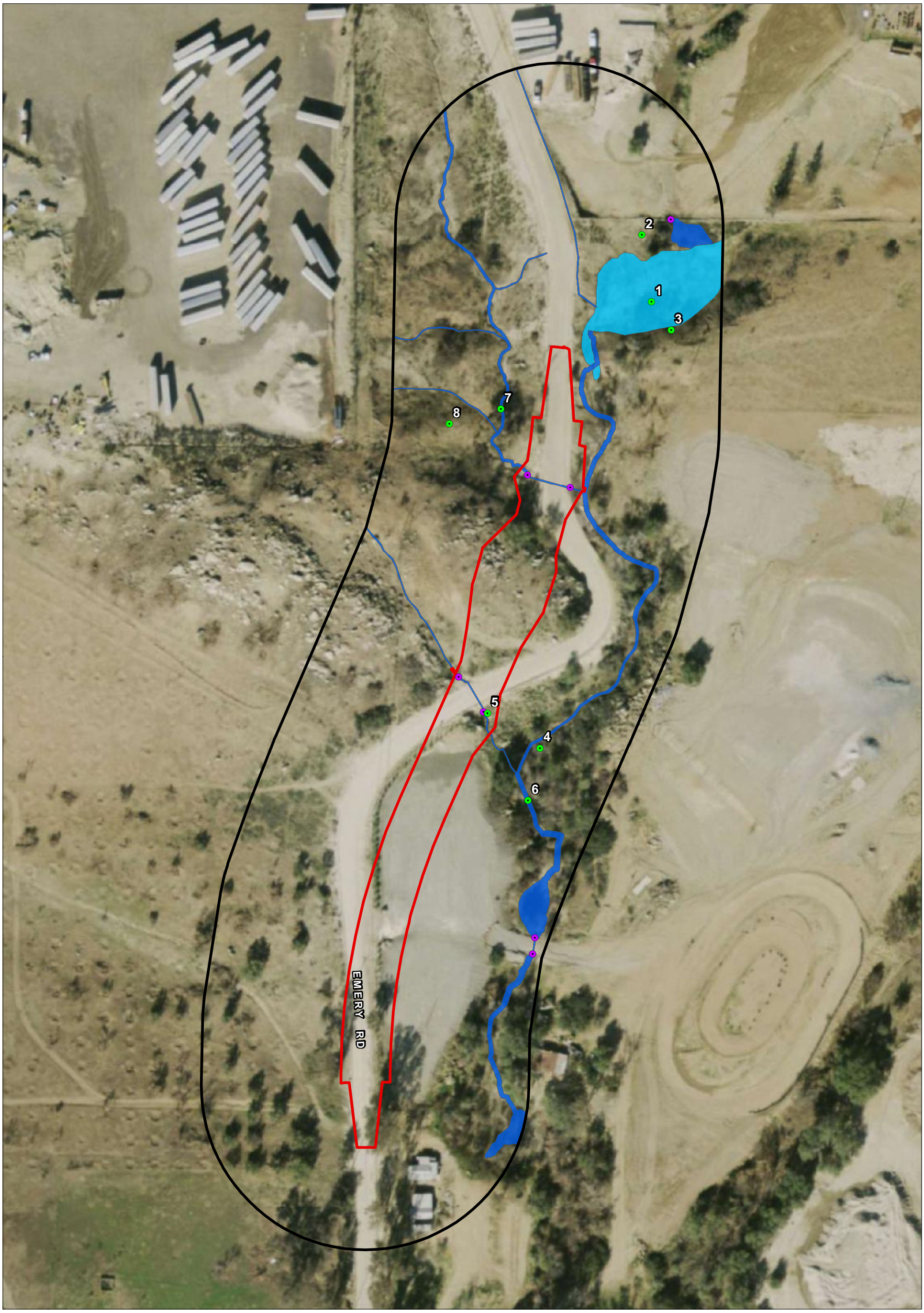

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Survey Area
Project Area

ACOE Jurisdictional Resources
Non-wetland Waters
Wetland

Sample Points
Culverts

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FIGURE 5
Existing ACOE Jurisdictional Resources within Project Survey Area

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0 Feet 100

Survey Area
Project Area
Sample Points
Culverts
CDFG Jurisdictional Resources
Riparian
Streambed

FIGURE 6

Existing CDFG Jurisdictional Resources within Project Survey Area

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regulations. Copies of the field data forms summarizing information on vegetation, hydrology, and soils observed at each of the sample points are provided in the *Jurisdictional Delineation Report for the Emery Road Realignment Project* (RECON 2009a).

TABLE 2
JURISDICTIONAL RESOURCES IN THE
EMERY ROAD REALIGNMENT SURVEY AREA

Jurisdictional Resources	Total
ACOE Jurisdiction	
Wetland	0.32
Non-wetland Waters	0.35
TOTAL ACOE	**0.67**
CDFG Jurisdiction†	
Riparian	1.72
Streambed	0.35
TOTAL CDFG	**2.07**
TOTAL RWQCB∓	**2.07**

† CDFG overlaps and includes ACOE jurisdictions.
∓ RWQCB includes all CDFG jurisdictions.

1.4.9 Habitat Connectivity and Wildlife Corridors

Wildlife movement corridors and habitat linkages are areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Corridors are generally local pathways connecting short distances usually covering one or two main types of vegetation communities. Linkages are landscape-level connections between very large core areas and generally span several thousand feet and cover multiple habitat types. Natural features such as canyon drainages, ridgelines, or areas with vegetation cover provide corridors and linkages for wildlife travel. The habitat connectivity provided by corridors and linkages is important in providing access to mates, food, and water, allowing the dispersal of individuals away from high population density areas, and facilitating the exchange of genetic traits between populations (Beier and Loe 1992).

1.5 Applicable Regulations

The following County, state, and federal environmental regulations apply to the proposed project:

Migratory Bird Treaty Act. The Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.) is a federal statute that implements treaties with several countries on the conservation and protection of migratory birds. The number of bird species covered by the MBTA is extensive and is listed at 50 CFR 10.13. The regulatory definition of "migratory bird" is broad and includes any mutation or hybrid of a listed species and includes any part, egg, or nest of such birds (50 CFR 10.12). Migratory birds are not necessarily federally-listed endangered or threatened birds under the Endangered Species Act. The MBTA, which is enforced by USFWS, makes it unlawful "by any means or in any manner, to pursue, hunt, take, capture, [or] kill" any migratory bird, or attempt such actions, except as permitted by regulation. The applicable regulations prohibit the take, possession, import, export, transport, sale, purchase, barter, or offering of these activities, except under a valid permit or as permitted in the implementing regulations (50 CFR 21.11).

Federal Water Pollution Control Act (Clean Water Act; CWA), 1972. The CWA provides a structure for regulating discharges into the waters of the U.S. Through this Act, the Environmental Protection Agency is given the authority to implement pollution control programs. These include setting wastewater standards for industry and water quality standards for contaminants in surface waters. The discharge of any pollutant from a point source into navigable waters is illegal unless a permit under its provisions is acquired. The ACOE is responsible for implementing Section 404 of the CWA (discharge of dredge/fill). In California, the State Water Resources Control Board (SWRCB) and the nine RWQCBsare responsible for implementing Section 401 (water quality) of the CWA.

California Environmental Quality Act (CEQA). CEQA provides guidelines for defining impacts. Appendix G of the guidelines contains questions that local jurisdictions should evaluate when analyzing a project's potential impacts. CEQA provides these guidelines so that local jurisdictions are able to determine what constitutes an "adverse effect" and significant impact to a biological resource.

California Fish and Game Code, Section 1600. Under Section 1602 of the Fish and Game Code, CDFG regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. CDFG has jurisdiction over riparian habitats (e.g., southern arroyo willow riparian forest, southern cottonwood-willow riparian forest, and southern willow scrub) associated with watercourses. Jurisdictional waters are delineated by the outer edge of riparian vegetation or at the top of the bank of streams or lakes, whichever is wider. CDFG jurisdiction does not include tidal areas or isolated resources.

Porter-Cologne Water Quality Control Act. The act provides for statewide coordination of water quality regulations. The California SWRCB was established as the statewide authority, and nine separate RWQCBs were developed to oversee water quality on a day-to-day basis and administer Section 401 of the CWA.

San Diego County General Plan – Conservation Element (Part X). The Conservation Element of the General Plan (Chapters 3 and 4) addresses County policies relating to water, vegetation, and wildlife habitat.

2.0 Project Impacts

2.1 Flora

Impacts to sensitive plant species are not expected to occur. Three sensitive plant species, sticky geraea, Tecate tarplant, and Rush-like bristleweed, were observed within the survey area; however, these plants are located outside the project footprint.

2.2 Fauna

The initial grading activities associated with the proposed project will potentially result in impacts to common amphibian and reptile species. However, the impacts will disturb a relatively small amount of habitat and are expected to impact a small number of individuals. The proposed project is not expected to result in impacts to common bird or mammal species, as these species are highly capable of dispersing. Therefore, impacts to general wildlife are considered less than significant. Potential impacts to sensitive wildlife species are discussed in Section 3.0.

2.3 Vegetation Communities

Permanent impacts that will occur as a result of realignment of Emery Road include excavation for and placement of the new road and culverts. A total of 1.408 acres of vegetation communities or land cover types will be permanently impacted by the proposed project (Table 3; Figure 7). Within the impact areas, five sensitive vegetation communities, including 0.015 acre of southern coast live oak riparian forest, 0.002 acre of non-vegetated channel, 0.035 acre of open coast live oak woodland, 0.375 acre of coastal sage-chaparral scrub, and 0.033 acre of disturbed Diegan coastal sage scrub, will be permanently impacted. Required mitigation measures for permanent impacts to sensitive vegetation communities are discussed in Section 4.4. Impacts to non-vegetated channel are considered significant in accordance with ACOE and CDFG; therefore, mitigation requirements for these impacts are discussed in Section 5.4 of this report.

Temporary impacts will occur as construction of temporary access roads, clearing and grubbing of vegetation, channel grading, creation of fill slopes, and the placement of

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Survey Area

Permanent Impacts

Temporary Impacts

Orange-throated Whiptail *(Aspidoscelis hyperythra)*

Quino Checkerspot Butterfly *(Euphydryas editha quino)*

Sticky Geraea *(Geraea viscida)*

Rush-like Bristleweed *(Machaeranthera juncea)*

Tecate Tarplant *Deinandra floribunda)*

Vegetation Communities

Coastal Sage - Chaparral Scrub

Disturbed Diegan Coastal Sage Scrub

Disturbed Habitat

Disturbed Southern Riparian Scrub

Eucalyptus Woodland

Non-vegetated Channel

Open Coast Live Oak Woodland / Individuals

Scrub Oak Chaparral

Developed

Southern Coast Live Oak Riparian Forest

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FIGURE 7

Impacts to Biological Resources

fiber rolls and slope stabilization binders to control erosion. Because all areas proposed for fill or excavation that are outside the footprint of the proposed road and associated structures will be restored to native vegetation following completion of the project, these impacts are considered temporary. The project will temporarily impact 0.003 acre of non-vegetated channel and 0.002 acre of developed land. Impacts to non-vegetated channel are considered significant in accordance with ACOE and CDFG; therefore, these impacts are discussed in further detail in Section 2.4 of this report.

TABLE 3
PROPOSED IMPACTS TO VEGETATION COMMUNITIES/LAND COVER TYPES IN THE EMERY ROAD REALIGNMENT SURVEY AREA

Vegetation Community/ Land Cover Type	**Permanent Impacts (acres)**	**Temporary Impacts (acres)**	**Total Impacts (acres)**
Southern Coast Live Oak Riparian Forest	0.015	–	0.015
Non-vegetated Channel	0.002	0.003	0.005
Open Coast Live Oak Woodland / Individuals	0.035	–	0.035
Coastal Sage - Chaparral Scrub	0.375	–	0.375
Disturbed Diegan Coastal Sage Scrub	0.033	–	0.033
Eucalyptus Woodland	0.004	–	0.004
Disturbed Habitat	0.047	–	0.047
Vegetation Community Subtotal	***0.511***	***0.003***	***0.514***
Developed	0.897	0.002	0.899
Total	***1.408***	***0.005***	***1.413***

2.4 Wetlands/Jurisdictional Waters

Permanent and temporary impacts proposed for the jurisdictional resources occurring within the Emery Road Realignment Project survey area are shown in Figures 8 and 9. Table 4 list permanent impacts to jurisdictional resources and expected mitigation requirements. Permanent impacts have been calculated for riprap, the new road, and the portion of culverts that extend beyond the existing alignment of Emery Road. The flow of water in the non-vegetated channel, including beneath Emery Road, and the surrounding habitat will be allowed to return to its current condition; therefore, these impacts are considered temporary.

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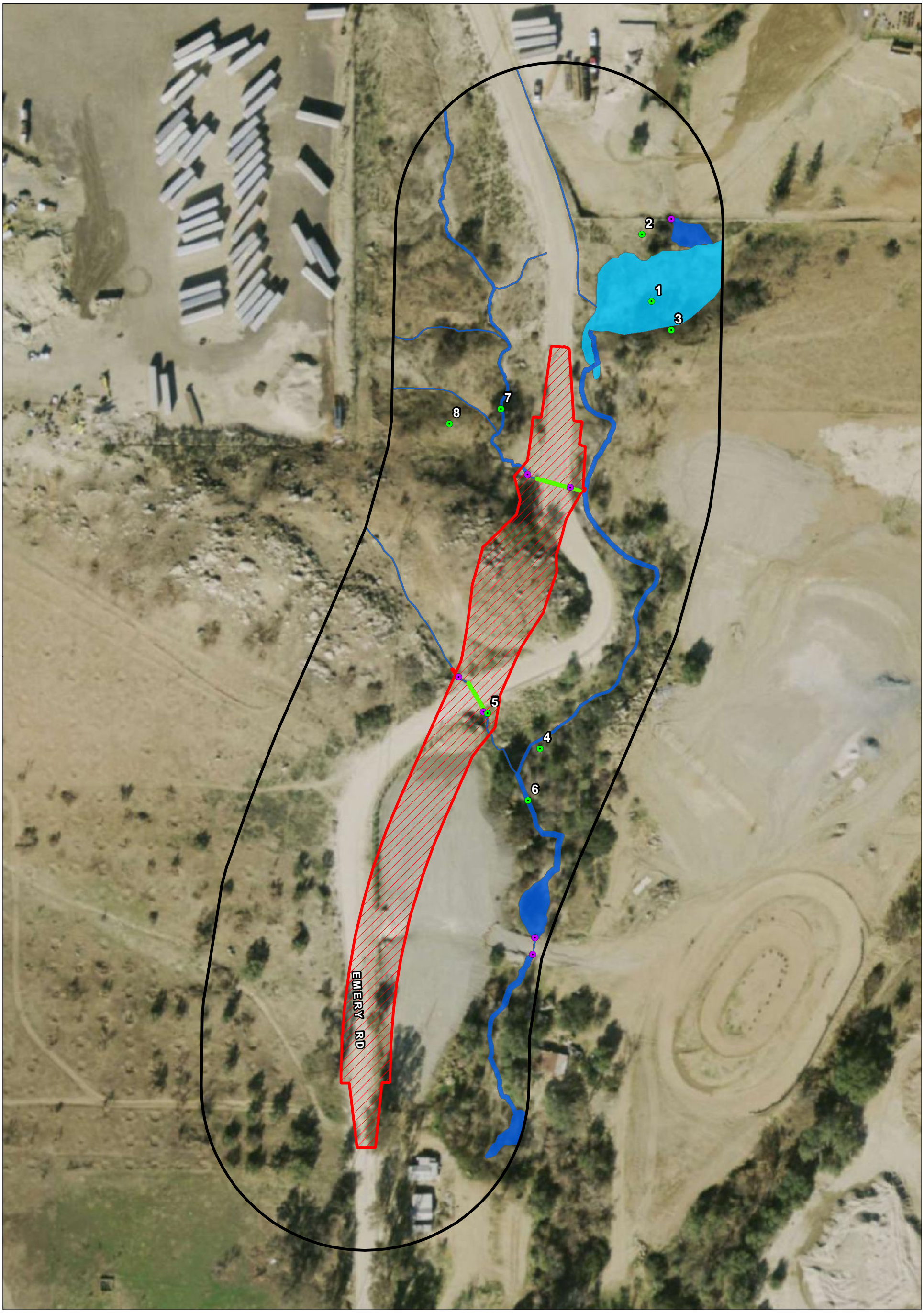

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FIGURE 8

Impacts to ACOE Jurisdictional Resources

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FIGURE 9

Impacts to CDFG Jurisdictional Resources

TABLE 4
MITIGATION REQUIREMENTS FOR IMPACTS
TO JURISDICTIONAL RESOURCES

Jurisdictional Resources	Permanent	Mitigation Ratio	Mitigation Acres
ACOE Resources		**--**	
Wetland	0.000	1:1	0.000
Non-wetland waters	0.002	1:1	0.002
CDFG/RWQCB		**--**	
Riparian habitat	0.015	1:1	0.015
Streambed	0.002	1:1	0.002[†]
Total Mitigation			**0.017**

[†] Includes impacts to ACOE jurisdictional resources.

The proposed project would permanently impact 0.002 acre (86 linear feet) of ACOE non-wetland waters. Temporary impacts to ACOE non-wetland waters would total 0.003 acre (93 linear feet). No permanent or temporary impacts are expected to occur to ACOE wetlands.

Permanent impacts to CDFG jurisdictional resources total 0.002 acre (86 linear feet) of streambed and 0.015 acre (73 linear feet) of riparian habitat. Temporary impacts to CDFG jurisdictional resources would total 0.003 acre (93 linear feet). No temporary impacts are expected to occur to riparian habitat.

As the RWQCB takes jurisdiction over all waters of the state and all waters of the U.S. as mandated by both the federal CWA and the California Porter-Cologne Water Quality Control Act, permanent and temporary impacts to RWQCB jurisdiction are equal to those under CDFG jurisdiction.

Impacts to jurisdictional resources on-site would require a 404 Nationwide Permit, a 1600 Streambed Alteration Agreement from CDFG, and a 401 certification from the California RWQCB. Typically, the threshold for impacts authorized under the Section 404 Nationwide Permit Program is less than 0.5 acre or 300 linear feet.

Authorized impacts to jurisdictional resources would require mitigation through habitat creation, enhancement, or preservation to achieve a no-net-loss of jurisdictional resources, as determined by a qualified restoration specialist in consultation with the regulatory agencies. The expected mitigation ratio for permanent impacts to non-wetland waters/streambed and wetlands/riparian habitat is 1:1; therefore, 0.017 acre of mitigation may be required.

3.0 Special Status Species

Plant or wildlife species are considered sensitive if they are (1) on List A, B, C, or D of the County of San Diego Sensitive Plant List or in Group 1 or 2 of the County of San Diego Sensitive Animal List (County of San Diego 2008); (2) listed by state or federal agencies as threatened or endangered or are proposed for listing; (3) on List 1B (considered endangered throughout its range) or List 2 (considered endangered in California but more common elsewhere) of the CNPS *Inventory of Rare and Endangered Vascular Plants of California* (2001); or (5) considered rare, endangered, or threatened by the CNDDB (State of California 2009a-d) or local conservation organizations or specialists.

Raptors (birds of prey) and active raptor nests are protected by the California Fish and Game Code 3503.5, which states that it is "unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird" unless authorized (State of California 1991).

3.1 Guidelines for the Determination of Significance

An adverse effect, either direct or through habitat modifications, on any sensitive species (as defined above in Section 3.0), is considered significant if any of the following conditions are met:

A. The project would impact one or more individuals of a species listed as federally or state endangered or threatened.

B. The project would impact the regional long-term survival of a County List A (rare, threatened, or endangered in California and elsewhere) or B (rare, threatened, or endangered in California but more common elsewhere) plant species, a County Group 1 animal species, or a species listed as a state Species of Special Concern.

C. The project would impact the regional long-term survival of a County List C (need more information to determine rarity status) or D (of limited distribution and uncommon, but not presently rare or endangered) plant species or a County Group 2 animal species.

D. The project may impact arroyo toad aestivation or breeding habitat.

E. The project would impact golden eagle (*Aquila chrysaetos canadensis*) habitat.

F. The project would result in a loss of functional foraging habitat for raptors.

G. The project would increase noise and/or nighttime lighting to a level above ambient proven to adversely affect sensitive species.

H. The project would impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more not limited to project boundaries, though smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or an area that supports multiple wildlife species.

I. The project would increase human access or predation or competition from domestic animals, pests, or exotic species to levels that would adversely affect sensitive species.

J. The project would impact nesting success of sensitive animals through grading, clearing, fire fuel modification, and/or noise generating activities such as construction.

3.2 Analysis of Project Effects

The proposed project may result in impacts under the following guidelines for the following reasons:

A. The project would impact one or more individuals of a species listed as federally or state endangered or threatened.

An individual Quino checkerspot butterfly, a federally and state endangered species, was detected on the site on one date. Any impacts to a viable breeding population of this species would require ESA Section 7 consultation with the USFWS for take authorization as part of the CWA 404 process. However, the lack of persistence of the species on the site and the lack of association of the individual butterfly with the single stand of larval host plant suggest the species was not breeding on the site. Avoidance and minimization measures are discussed below in Section 3.4.A to ensure impacts to this species are avoided.

B. The project would impact the regional long-term survival of a County List A (rare, threatened, or endangered in California and elsewhere) or B (rare, threatened, or endangered in California but more common elsewhere) plant species, a County Group 1 animal species, or a species listed as a state Species of Special Concern.

The proposed project may result in impacts to one County List A plant species, sticky geraea. In addition, Tecate tarplant, a County List B plant species, has potential to occur within the APE. Focused surveys for Tecate tarplant will be

conducted during the late summer to early fall, prior to any work, to determine presence/absence. Sensitive plant species occurring within the APE should be avoided where practicable. If impacts to County List A or B species are unavoidable, individual plants shall be relocated, when appropriate, or included as part of the restoration palette for temporary or permanent impacts. .

C, D, E, and F. See discussion below.

G. The project would increase noise and/or nighttime lighting to a level above ambient proven to adversely affect sensitive species.

All project-related work will be conducted during daylight hours, and no lighting is proposed as part of the proposed trail improvements; therefore, no nighttime lighting will be introduced into the survey area. As suitable nesting habitat for tree-nesting raptors is present within and adjacent to the proposed project site, project-related indirect noise impacts have the potential to occur to these species if initial grading and construction occur during their nesting season, which occurs between February 1 and August 31. Impacts to nesting raptors would be considered significant if the impacts result in nest failure. Avoidance and mitigation measures are discussed in Sections 3.4. G/J.

J. The project would impact nesting success of sensitive animals through grading, clearing, fire fuel modification, and/or noise generating activities such as construction.

As suitable nesting habitat for tree-nesting raptors is present within and adjacent to the proposed project site, project-related grading, clearing, and noise generating activities have the potential to impact the nesting success of these species if initial grading and construction occur during the raptor nesting season between February 1 and August 31. Avoidance and mitigation measures are discussed in Section 3.4. G/J.

The proposed project will not result in significant impacts under the following guidelines for the following reasons:

C. The project would impact the regional long-term survival of a County List C (need more information to determine rarity status) or D (of limited distribution and uncommon, but not presently rare or endangered) plant species or a County Group 2 animal species.

No County List C or D plant species or Copunty Group 2 animal species were observed within the survey area and none are expected to occur within the APE.

D. The project may impact arroyo toad (*Bufo californicus*) aestivation or breeding habitat.

The site contains no suitable habitat for the arroyo toad. The small size and lower order of the drainage; lack of significant open, sand or gravel channel; and apparent lack of persistent pool basins indicate unsuitable habitat conditions for this species.

E. The project would impact golden eagle (*Aquila chrysaetos canadensis*) habitat.

No golden eagles are present on-site or known to occur within 4,000 feet of the survey area.

F. The project would result in a loss of functional foraging habitat for raptors.

As the acreage of native vegetation that will be permanently impacted by the proposed project is small and spread out along the proposed road realignment, the impacts to raptor foraging habitat will be minimal. Therefore, the proposed impacts within the project site are not expected to result in a significant loss of functional raptor foraging habitat.

H. The project would impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more not limited to project boundaries, though smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or an area that supports multiple wildlife species.

The project area is highly disturbed and is not within a core wildlife area; therefore, the proposed project would not impact the viability of a core wildlife area that supports multiple wildlife species. In addition, the impacts to native vegetation are linear and small, as the realignment will be constructed along existing dirt paths, and the proposed project will not introduce any barriers to wildlife movement through the area.

I. The project would increase human access or predation or competition from domestic animals, pests, or exotic species to levels that would adversely affect sensitive species.

The proposed project is located within an area that has a high level of human activity. The project would not increase human or animal access to the area, as no new access points or parking areas would be created; therefore, the proposed project is not expected to adversely affect sensitive species due to an increase in human access to the area.

3.3 Cumulative Impact Analysis

As the vegetative impacts associated with road improvements would be minimal, and potential impacts to sensitive species would be mitigated to a level of less than significance, the proposed project is not expected to significantly contribute to cumulative impacts in the vicinity.

3.4 Mitigation Measures and Design Considerations

A/B/C. The proposed project may result in impacts to one County List A plant species, sticky geraea. In addition, Tecate tarplant, a County List B plant species, has potential to occur within the APE. Focused surveys for Tecate tarplant will be conducted during the late summer to early fall, prior to any work, to determine presence/absence. In accordance with the County of San Diego Biology Guidelines (2008), sensitive plant species occurring within the APE should be avoided where practicable. If impacts to County List A or B species are unavoidable, individual plants shall be relocated, when appropriate, or included as part of the restoration palette for temporary or permanent impacts.

Mitigation is not recommended for the Quino checkerspot butterfly, as the single location of this species during surveys did not coincide with the location of larval host plant on the site. No butterflies were recorded in the stand of host plant. The combination of these factors suggests that this species was not breeding on-site.

G/J. In order to prevent direct and indirect noise impacts to tree nesting raptors initial grading and construction within the proposed project site should take place outside the raptors' breeding season of February 1 to July 15. If construction occurs between February 1 and July 15, a qualified biologist shall conduct a pre-construction clearance survey for nesting raptors in suitable nesting habitat (e.g., eucalyptus, palm, or oak trees) that occurs within 500 feet of the survey area. If any active raptor nest is located, the nest area will be flagged, and a 500-foot buffer zone delineated, flagged, or otherwise marked. No work activity may occur within this buffer area until a qualified biologist determines the fledglings are independent of the nest.

3.5 Conclusions

The proposed avoidance, minimization, and mitigation measures described above in Section 3.4 will reduce the potential impacts to sensitive species to a level of less than significant.

4.0 Riparian Habitat or Sensitive Natural Community

For purposes of this report, sensitive vegetation communities (i.e., natural communities) are those identified by the CDFG (State of California 2008e; Holland 1986) or the County of San Diego (2008). Reasons for the sensitive status of vegetation communities include restricted range, cumulative losses throughout the region, and a high number of endemic sensitive plant and wildlife species that occur in the vegetation communities. These communities are considered sensitive whether or not they have been disturbed. Following CEQA Guidelines, riparian and sensitive habitats are discussed in a separate section from wetlands.

4.1 Guidelines for the Determination of Significance

An adverse effect on any riparian habitat or other sensitive natural community (as defined above in Section 4.0) is considered significant if any of the following conditions are met:

A. Project-related construction, grading, clearing, or other activities would temporarily or permanently remove sensitive native or naturalized habitat on or off the project site.

B. Any of the following will occur to or within jurisdictional wetlands and/or riparian habitats as defined by ACOE, CDFG, and the County of San Diego: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity, and abundance.

C. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of three feet or more from historical low groundwater levels.

D. The project would increase human access or competition from domestic animal, pest, or exotic species to levels proven to adversely affect sensitive habitats.

E. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands.

4.2 Analysis of Project Effects

The proposed project may result in impacts under the following guidelines for the following reasons:

A. Project-related construction, grading, clearing, or other activities would temporarily or permanently remove sensitive native or naturalized habitat on or off the project site.

Within the impact areas, five sensitive vegetation communities, including southern coast live oak riparian forest, non-vegetated channel, open coast live oak woodland, coastal sage-chaparral scrub, and disturbed Diegan coastal sage scrub, will be permanently impacted. Temporary impacts will result to one sensitive land cover type, non-vegetated channel refer to Table 3 for specific impacts.

B. Any of the following will occur to or within jurisdictional wetlands and/or riparian habitats as defined by ACOE, CDFG, and the County of San Diego: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity, and abundance.

As discussed in Section 4.2.A above, the proposed project is expected to temporarily and permanently impact southern coast live oak riparian forest. Impacts to jurisdictional resources, which include this habitat, will require mitigation (see Section 5.2.A).

The proposed project would not result in impacts under the following guidelines for the following reasons:

C. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of three feet or more from historical low groundwater levels.

The proposed project would not significantly draw down the groundwater table, as the use of groundwater is not proposed for this project.

D. The project would increase human access or competition from domestic animal, pest, or exotic species to levels proven to adversely affect sensitive habitats.

The project would not increase human or animal access to the area, as no new access points or parking areas would be created; therefore, the proposed project is not expected to adversely affect sensitive species due to an increase in human access to the area.

E. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands.

The project is not expected to impact the functions and values of adjacent wetlands as no impacts to wetland habitat are associated with the proposed realignment.

4.3 Cumulative Impact Analysis

The proposed project's potential impacts to sensitive habitats require mitigation as discussed in Section 4.2.A. The proposed mitigation measures for impacts to jurisdictional habitat is described below in Section 4.4 and will reduce impacts to sensitive habitats to a level of less than significant. Therefore, when considered in conjunction with past and present projects located in the vicinity of the proposed project site, the proposed project would not contribute to a cumulatively considerable impact.

4.4 Mitigation Measures and Design Considerations

A/B. Both temporary and permanent impacts to southern coast live oak riparian forest, non-vegetated channel, open coast live oak woodland, coastal sage-chaparral scrub, and disturbed Diegan coastal sage scrub, will be mitigated at a ratio of 1:1 for a total required mitigation of 0.46 acre.

Areas permanently impacted by project implementation would require mitigation in the form of on-site creation, enhancement, restoration, or purchase of off-site

mitigation credits. Temporary impacts will be mitigated through on-site restoration. The sensitive vegetation communities will be restored through revegetation or enhancement of the impacted areas following completion of project construction.

TABLE 5
MITIGATION REQUIREMENTS FOR PERMANENT IMPACTS
TO SENSITIVE VEGETATION COMMUNITIES

Vegetation Community/ Land Cover Type	Permanent Impacts (acres)	Mitigation Ratio	Required Mitigation (acres)
Southern Coast Live Oak Riparian Forest	0.015	1:1	0.015
Non-vegetated Channel	0.002	1:1	0.002
Open Coast Live Oak Woodland / Individuals	0.035	1:1	0.035
Coastal Sage - Chaparral Scrub	0.375	1:1	0.375
Disturbed Diegan Coastal Sage Scrub	0.033	1:1	0.033
Eucalyptus Woodland	0.004	0:1	0.000
Disturbed Habitat	0.047	0:1	0.000
Vegetation Community Subtotal	***0.511***	**–**	**–**
Developed	0.897	0:1	0.000
Total	**1.408**	**–**	**0.460**

4.5 Conclusions

The proposed mitigation described above in Section 4.4 would reduce impacts to sensitive habitat to a level of less than significant.

5.0 Jurisdictional Wetlands and Waterways

All wetland areas, wetland buffer areas, and non-wetland waters of the U.S. are considered sensitive. Wetlands and non-wetland waters are under the jurisdiction of the ACOE. Streambeds and associated vegetation are under the jurisdiction of the CDFG. Waters of the state and waters of the U.S. are under the jurisdiction of the RWQCB.

5.1 Guidelines for the Determination of Significance

The proposed project would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the federal CWA (including, but not limited to, marsh, vernal pool, coastal, and so on) through direct removal, filling, hydrological interruption or other means if any of the following conditions are met:

A. Any of the following will occur to or within jurisdictional wetlands, waters, and/or riparian habitats as defined by ACOE, CDFG, and the County of San Diego Resource Protection Ordinance (RPO): removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity, and abundance.

B. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of three feet or more from historical low groundwater levels.

C. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands.

5.2 Analysis of Project Effects

The proposed project may result in impacts under the following guidelines for the following reasons:

A. Any of the following will occur to or within jurisdictional wetlands, waters, and/or riparian habitats as defined by ACOE, CDFG, and the County of San Diego RPO: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity, and abundance.

In order to reduce the impacts to ACOE and CDFG jurisdictional resources, the proposed project has been designed to avoid and minimize impacts to jurisdictional waters to the maximum extent practicable. The proposed project would result in permanent and temporary impacts to ACOE non-wetland waters,

CDFG streambed, and CDFG riparian habitat (see Table 4). The following activities would likely occur to or within jurisdictional waters as defined by ACOE and CDFG: removal of vegetation, grading, placement of fill or temporary siltation, and placement of culverts. These impacts would be considered significant.

The proposed project would not result in impacts under the following guidelines for the following reasons:

B. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of three feet or more from historical low groundwater levels.

The proposed project would not draw down the groundwater table as use of groundwater is not proposed for this project.

C. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands.

No direct impacts to wetland habitat are associated with the proposed realignment of Emery Road.

5.3 Cumulative Impact Analysis

The proposed project's impacts to potential jurisdictional wetlands and waterways will be avoided or minimized through specific design considerations or mitigated to a level of less than significant. Therefore, when considered in conjunction with past and present projects located in the vicinity of the proposed project site, the proposed project would not contribute to a cumulatively considerable impact.

5.4 Mitigation Measures and Design Considerations

A. Impacts to jurisdictional resources on-site would require a 404 Nationwide Permit, a 1600 Streambed Alteration Agreement from CDFG, and a 401 certification from the California RWQCB. Typically, the threshold for impacts authorized under the Section 404 Nationwide Permit Program is less than 0.5 acre or 300 linear feet. Through coordination with the applicant, ACOE may use this delineation report as reference during a site visit to make the final determination as to the jurisdictional nature of the site.

Authorized impacts to jurisdictional resources would require mitigation through habitat creation, enhancement, or preservation to achieve a no-net-loss of jurisdictional resources, as determined by a qualified restoration specialist in consultation with the regulatory agencies. The expected mitigation ratio for permanent impacts to non-wetland waters/streambed and wetlands/riparian habitat is 1:1; therefore, 0.017 acre of mitigation may be required.

5.5 Conclusions

The proposed project design specifications and mitigation described above in Section 5.4 would reduce impacts to jurisdictional waters to a level of less than significant.

6.0 Wildlife Movement and Nursery Sites

Wildlife movement corridors are considered sensitive by the County of San Diego and resource and conservation agencies.

6.1 Guidelines for the Determination of Significance

Project-related interference with the movement of any native resident, migratory fish, or wildlife species, with established native resident or migratory wildlife corridors, or with the use of native wildlife nursery sites would be considered significant if any of the following conditions are met:

A. The project would prevent wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.

B. The project would substantially interfere with connectivity between blocks of habitat, or would potentially block or substantially interfere with a local or regional wildlife corridor or linkage.

C. The project would create artificial wildlife corridors that do not follow natural movement patterns.

D. The project would increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels proven to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.

E. The project does not maintain an adequate width for an existing wildlife corridor or linkage and/or would further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover, placement of incompatible uses adjacent to it, and placement of barriers in the movement path.

F. The project does not maintain adequate visual continuity (i.e., long lines-of-sight) within wildlife corridors or linkage.

6.2 Analysis of Project Effects

The proposed project will not result in significant impacts under the following guidelines for the following reasons:

A. The project would prevent wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.

The proposed project would not interfere with wildlife's accessibility to resources. Given that the proposed project area has a high level of human activity and lack of vegetative cover, it is not likely that wildlife would use the project or surrounding areas for foraging or breeding.

B. The project would substantially interfere with connectivity between blocks of habitat, or would potentially block or substantially interfere with a local or regional wildlife corridor or linkage.

The proposed project would not block or substantially interfere with an existing corridor, as the project area is not located within a wildlife corridor or linkage and is highly disturbed with a high level of human activity.

C. The project would create artificial wildlife corridors that do not follow natural movement patterns.

The project would not create artificial wildlife corridors. The proposed project area has a high level of human activity and lack of vegetative cover; therefore it is not likely that wildlife would use the project or surrounding areas as a corridor.

D. The project would increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels proven to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.

All project-related activities will take place during daylight hours; therefore, no nighttime lighting will be used. As the existing use of the road will continue under

the proposed project, noise levels are not expected to substantially increase or affect the behavior of animals adjacent to the proposed realignment.

E. The project does not maintain an adequate width for an existing wildlife corridor or linkage and/or would further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover, placement of incompatible uses adjacent to it, and placement of barriers in the movement path.

The proposed project is not located within a wildlife corridor or linkage. Therefore, the proposed project would not affect the width of any existing wildlife corridor or linkage, nor would it remove a substantial amount of vegetative cover. No barriers to wildlife movement are proposed as part of the project.

F. The project does not maintain adequate visual continuity (i.e., long lines-of-sight) within wildlife corridors or linkage.

The proposed project is not located within a wildlife corridor or linkage.

6.3 Cumulative Impact Analysis

The proposed project would not result in impacts to wildlife movement corridors or nursery sites and, therefore, would not contribute to cumulative impacts of past or current cumulative projects.

6.4 Mitigation Measures and Design Considerations

The proposed project is not located within a wildlife corridor or linkage. Therefore, proposed project would not result in impacts to wildlife movement corridors or nursery sites. Therefore, no mitigation will be required.

6.5 Conclusions

The proposed project will not result in impacts to wildlife movement corridors, as the proposed project is not located within a wildlife corridor or linkage. The proposed project will not result in impacts to nursery sites, as none have been identified within or adjacent to the proposed project site.

7.0 Local Policies, Ordinances, and Adopted Plans

7.1 Guidelines for the Determination of Significance

If this project conflicts with any local policies or ordinances protecting biological resources or with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan, any of the following conditions would be considered significant:

A. For lands outside the MSCP, the project would impact coastal sage scrub (CSS) vegetation in excess of the County's 5 percent habitat loss threshold as defined by the Southern California CSS NCCP Process Guidelines.

B. The project would preclude or prevent the preparation of the sub-regional NCCP Process. For example, the project proposes development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.

C. The project will impact any amount of sensitive habitat lands as outlined in the RPO.

D. The project would not minimize and/or mitigate CSS habitat loss in accordance with Section 4.3 of the NCCP Process Guidelines.

E. The project does not conform to the goals and requirements as outlined in any applicable HCP, habitat management plan, Special Area Management Plan, Watershed Plan, or similar regional planning effort.

F. For lands within the MSCP, the project would not minimize impacts to Biological Resource Core Areas (BRCAs) as defined in the Biological Mitigation Ordinance (BMO).

G. The project would preclude connectivity between areas of high habitat values, as defined by the Southern California CSS NCCP Process Guidelines.

H. The project does not maintain existing movement corridors and/or habitat linkages as defined by the BMO.

I. The project does not avoid impacts to MSCP narrow endemic species and would impact core populations of narrow endemics.

J. The project would result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (MBTA).

K. The project would result in the take of eagles, eagle eggs, or any part of an eagle (Bald and Golden Eagle Protection Act).

7.2 Analysis of Project Effects

The proposed project will result in significant impacts under the following guidelines for the following reasons:

D. The project would not minimize and/or mitigate CSS habitat loss in accordance with Section 4.3 of the NCCP Process Guidelines.

The proposed permanent impacts to disturbed Diegan coastal sage scrub and coastal sage-chaparral scrub total 0.408 acre; therefore, 0.408 acre of mitigation will be required.

The proposed project will not result in significant impacts under the following guidelines for the following reasons:

A. For lands outside the MSCP, the project would impact CSS vegetation in excess of the County's 5 percent habitat loss threshold as defined by the Southern California CSS NCCP Process Guidelines.

The proposed project does not impact CSS vegetation in excess of the County's 5 percent habitat loss threshold. As part of the NCCP process, the County was allocated 2,953.3 acres of CSS impacts outside of the boundaries of the MSCP; which constitutes the County's 5percent habitat loss allowance. As of April 30, 2009, impacts totaling 1,159.82 acres have been recorded or are pending, leaving 1,617.68 acres of allowed CSS impacts remaining. Therefore, impacts to CSS due to the proposed project would not exceed the 5 percent threshold.

B. The project would preclude or prevent the preparation of the subregional NCCP Process. For example, the project proposes development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.

The project does not propose development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.

C. The project will impact any amount of sensitive habitat lands as outlined in the RPO.

The proposed project is not subject to the County's RPO. Therefore, this guideline is not applicable.

E. The project does not conform to the goals and requirements as outlined in any applicable HCP, habitat management plan, Special Area Management Plan, Watershed Plan, or similar regional planning effort.

The proposed project does not conflict with any known regional planning efforts.

F. For lands within the MSCP, the project would not minimize impacts to BRCAs as defined in the BMO.

The proposed project is not located within the boundaries of the MSCP; therefore, this guideline is not applicable.

G. The project would preclude connectivity between areas of high habitat values, as defined by the Southern California CSS NCCP Process Guidelines.

The project does not preclude connectivity between areas of high habitat values, as defined by the Southern California CSS NCCP Process Guidelines. The proposed project involves minimal clearing along an existing dirt road, and therefore does not introduce significant barriers within the existing area of low habitat value.

H. The project does not maintain existing movement corridors and/or habitat linkages as defined by the BMO.

The proposed project would not block or substantially interfere with an existing corridor as the proposed project is not located within a corridor or linkage. In addition, the area surrounding the proposed project has a high level of human activity and disturbance, as well as little vegetative cover; therefore, it is not likely to be used as a corridor.

I. The project does not avoid impacts to MSCP narrow endemic species and would impact core populations of narrow endemics.

The proposed project is not located within the boundaries of the County's MSCP boundary; therefore, this guideline is not applicable.

J. The project would result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (MBTA).

The proposed project is not expected to result in impacts to migratory birds, as these species are highly capable of dispersing. Furthermore, the project is not

expected to result in impacts to or destruction of active migratory bird nests or eggs, as no nests were observed within the footprint of the realignment site.

K. The project would result in the take of eagles, eagle eggs, or any part of an eagle (Bald and Golden Eagle Protection Act).

No eagles are present on-site or known to occur within 4,000 feet of the survey area.

7.3 Cumulative Impact Analysis

The proposed project's potential impacts will be avoided through specific design considerations or mitigated to a level of less than significant. Therefore, when considered in conjunction with past and present projects located in the vicinity of the proposed project site, the proposed project would not contribute to a cumulatively considerable impact.

7.4 Mitigation Measures and Design Considerations

D. As discussed in Section 4.2.A, the proposed project would result in impacts to up to 0.408 acre of CSS. Therefore, 0.408 acre of mitigation may be required.

7.5 Conclusions

The proposed mitigation for impacts to disturbed coastal sage scrub and coastal sage-chaparral scrub discussed above and in Sections 4.2 would reduce impacts to a level of less than significant.

8.0 Summary of Project Impacts and Mitigation

The proposed project is a realignment of an existing dirt road approximately 0.14 mile in length and 40 feet wide. The County proposes to straighten and widen the road in this section by cutting a new alignment through the small, rocky ridge that the current road circumvents. In addition, the project would result in the construction of two new culverts to serve the realigned roadway.

The initial grading activities associated with the proposed project will potentially result in impacts to common amphibian and reptile species. However, the impacts will disturb a relatively small amount of habitat and are expected to impact a small number of individuals. The proposed project is not expected to result in impacts to common bird or mammal species, as these species are highly capable of dispersing. Therefore, impacts to general wildlife are considered less than significant. Three sensitive wildlife species—red-shouldered hawk, Belding's orange-throated whiptail, and quino checkerspot butterfly—were observed within the survey area. Potential impacts to sensitive wildlife species are discussed in Section 1.4.7. Avoidance measures and detailed mitigation discussed in Sections 3.4 would reduce impacts to a level of less than significant.

A total of 1.408 acres of vegetation communities or land cover types will be permanently impacted by the proposed project (see Table 3). Within the impact areas, five sensitive vegetation communities, including 0.015 acre of southern coast live oak riparian forest, 0.002 acre of non-vegetated channel, 0.035 acre of open coast live oak woodland, 0.375 acre of coastal sage-chaparral scrub, and 0.033 acre of disturbed Diegan coastal sage scrub will be permanently impacted. The project will temporarily impact 0.003 acre of non-vegetated channel. Impacts to non-vegetated channel are considered significant in accordance with ACOE and CDFG.

The proposed project would permanently impact 0.005 acre (86 linear feet) of ACOE non-wetland waters (Table 4). Temporary impacts to ACOE non-wetland waters would total 0.004 acre. No permanent or temporary impacts are expected to occur to ACOE wetlands. Permanent impacts to CDFG jurisdictional resources total 0.005 acre of streambed and 0.015 acre of riparian habitat. Temporary impacts would occur to 0.004. No temporary impacts are expected to occur to riparian habitat. Authorized impacts to jurisdictional resources would require mitigation through habitat creation, enhancement, or preservation to achieve a no-net-loss of jurisdictional resources, as determined by a qualified restoration specialist in consultation with the regulatory agencies. The expected mitigation ratio for permanent impacts to jurisdictional resources is 1:1a; therefore, 0.017 acre of mitigation may be required.

Adherence to the recommended mitigation measures discussed in Sections 3.0 through 7.0 would ensure the proposed project would not significantly conflict with any local policies or ordinances protecting biological resources or with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan.

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ATTACHMENTS

ATTACHMENT 1

ATTACHMENT 1
PLANT SPECIES OBSERVED WITHIN
EMERY ROAD REALIGNMENT SURVEY AREA

Scientific Name	Common Name	Habitat	Origin
	LYCOPODS		
SELAGINELLACEAE	**SPIKE-MOSS FAMILY**		
Selaginella bigelovii L. Underw.	Bigelow spike-moss	DDCSS	N
	GYMNOSPERMS		
	GNETALES		
EPHEDRACEAE	**EPHEDRA FAMILY**		
Ephedra californica Wats.	desert tea	DDCSS	N
	ANGIOSPERMS: DICOTS		
AMARANTHACEAE	**AMARANTH FAMILY**		
Salsola tragus L.	Russian thistle, tumbleweed*	DDCSS, DIST	I
ANACARDIACEAE	**SUMAC OR CASHEW FAMILY**		
Malosma laurina (Nutt.) Abrams	laurel sumac	DDCSS	N
Rhus ovata Wats.	sugar bush	DDCSS,	N
Rhus trilobata Torrey & A. Gray	skunkbrush	DDCSS	N
Schinus molle L.	Peruvian pepper tree	DSRS	I
Toxicodendron diversilobum (Torrey & A. Gray) E. Greene	western poison oak	DDCSS, SCQRF	N
APIACEAE (UMBELLIFERAE)	**CARROT FAMILY**		
Daucus pusillus Michx	rattlesnake weed	DDCSS	N
Nerium oleander L.	oleander	DIST	I
ASTERACEAE	**SUNFLOWER FAMILY**		
Ambrosia psilostachya DC.	western ragweed	DDCSS, SCWRF, DSRS	N
Artemisia californica Less.	California sagebrush	DDCSS, SSCSS	N
Baccharis salicifolia (Ruiz Lopez & Pavón) Pers.	mule fat, seep-willow	DDCSS, SCWRF	N
Baccharis sarothroides A. Gray	broom baccharis	DDCSS	N
Brickellia californica (Torrey & A. Gray) A. Gray	California brickellbush	DDCSS	N
Centaurea melitensis L.	tocolote, star-thistle	DDCSS	I
Corethrogyne filaginifolia [=*Lessingia filaginifolia* var. *filaginifolia*] (Hook. & Arn.) Nutt.	California-aster	DDCSS	N
Deinandra [=*Hemizonia*] *floribunda* (A. Gray) Davidson & Moxley	Tecate tarplant	DIST, DSRS	N
Geraea viscida (A. Gray) Blake	sticky geraea	DDCSS	N
Gnaphalium sp.	cudweed, everlasting	DDCSS	N

ATTACHMENT 1
PLANT SPECIES OBSERVED WITHIN
EMERY ROAD REALIGNMENT SURVEY AREA
(continued)

Scientific Name	Common Name	Habitat	Origin
Gutierrezia californica (DC.) Torrey & A. Gray	California matchweed	DDCSS	N
Hazardia squarrosa (Hook. & Arn.) E. Greene	sawtoothed goldenbush	DDCSS	N
Hedypnois cretica (L.) Dum. - Cours.	hedypnois	DDCSS	I
Logfia filaginoides [=*Filago californica*] (Hook. & Arn.) Morefield	California herba impia, fluffweed	DDCSS	N
Solidago californica Nutt.	California goldenrod	DDCSS, SCWFR	N
Stephanomeria virgata (Benth.) ssp. *virgata*	slender stephanomeria	DDCSS	N
Tetradymia comosa A. Gray	cotton-thorn	DDCSS	N
BRASSICACEAE (CRUCIFERAE)	**MUSTARD FAMILY**		
Brassica nigra (L.) Koch.	black mustard	DDCSS, DDCSS	I
Hirschfeldia incana (L.) Lagr.-Fossat	short-pod mustard	DDCSS, DDCSS	I
CACTACEAE	**CACTUS FAMILY**		
Cylindropuntia californica [=*Opuntia parryi*] (Torr. & A. Gray) F. M. Knuth	snake cholla	DDCSS	N
CAPRIFOLIACEAE	**HONEYSUCKLE FAMILY**		
Lonicera subspicata Hook. & Arn. var. *denudata* Rehd.	wild honeysuckle	DDCSS, SCWRF	N
Sambucus mexicana C. Presl	blue elderberry	SCWRF	N
CONVOLVULACEAE	**MORNING-GLORY FAMILY**		
Calystegia macrostegia ssp. *intermedia* (Abrams) Brum	chaparral morning-glory	DDCSS	N
Cuscuta californica Hook. & Arn.	dodder	DDCSS	N
CUCURBITACEAE	**GOURD FAMILY**		
Marah macrocarpus (E. Greene) E. Greene	wild cucumber	DDCSS	N
FABACEAE (LEGUMINOSAE)	**LEGUME FAMILY**		
Lotus scoparius (Nutt. in Torrey & A. Gray) Ottley var. *scoparius*	California broom	DDCSS	N
Lupinus bicolor Lindl.	miniature lupine	DDCSS	N
FAGACEAE	**OAK FAMILY**		
Quercus agrifolia Née	coast live oak, encina	OCLOW, SCWRF	N
Quercus berberidifolia Liebm.	scrub oak	DDCSS, SOC	N
Quercus engelmannii E. Greene	Engelmann oak, mesa oak	SCWRF	N
GERANIACEAE	**GERANIUM FAMILY**		
Erodium cicutarium (L.) L'Hér. ex Aiton	white-stemmed filaree	DDCSS, DIST, SCWRF	I

ATTACHMENT 1
PLANT SPECIES OBSERVED WITHIN
EMERY ROAD REALIGNMENT SURVEY AREA
(continued)

Scientific Name	Common Name	Habitat	Origin
LAMIACEAE	**MINT FAMILY**		
Marrubium vulgare L.	horehound	EW	I
Salvia apiana Jepson	white sage	DDCSS	N
Salvia columbariae Benth.	chia	DDCSS	N
MALVACEAE	**MALLOW FAMILY**		
Malacothamnus fasciculatus (Torrey & A. Gray) E. Greene	chaparral mallow	DDCSS	N
MYRTACEAE	**MYRTLE FAMILY**		
Eucalyptus spp.	eucalyptus	EW	I
OLEACEAE	**OLIVE FAMILY**		
Olea europaea L.	common olive	DIST	I
ONAGRACEAE	**EVENING-PRIMROSE FAMILY**		
Clarkia purpurea (Curt.) Nelson & J.F. Macbr. ssp. *quadrivulnera* (Dougl. in Lindl.) Lewis & Lewis	four-spot	DDCSS	N
Epilobium canum (E. Greene) Raven ssp. *canum*	California-fuchsia, zauschneria	SCWRF	N
PHRYMACEAE [=SCROPHULARIACEAE]*			
Mimulus aurantiacus Curtis	low bush monkeyflower	DDCSS	N
PLANTAGINACEAE	**PLANTAIN FAMILY**		
Plantago erecta Morris	dot-seed plantain	DDCSS	N
POLYGONACEAE	**BUCKWHEAT FAMILY**		
Chorizanthe sp.	Turkish rugging	DDCSS	N
Eriogonum fasciculatum Benth. var. *fasciculatum*	California buckwheat	DDCSS	N
Eriogonum gracile Benth.	slender buckwheat	DDCSS	N
Rumex crispus L.	curly dock	DSRS	I
RANUNCULACEAE	**BUTTERCUP FAMILY**		
Clematis lasiantha (Nutt.)	pipestems	DDCSS	N
RHAMNACEAE	**BUCKTHORN FAMILY**		
Ceanothus leucodermis E. Greene	chaparral whitehorn	DDCSS	N
Rhamnus crocea Nutt.	spiny redberry	DDCSS, SCWRF	N

ATTACHMENT 1
PLANT SPECIES OBSERVED WITHIN
EMERY ROAD REALIGNMENT SURVEY AREA
(continued)

Scientific Name	Common Name	Habitat	Origin
ROSACEAE	**ROSE FAMILY**		
Adenostoma fasciculatum Hook. & Arn.	chamise	DDCSS	N
Prunus ilicifolia (Nutt.) Walp. ssp. *ilicifolia*	holly-leafed cherry, islay	SCWRF	N
SALICACEAE	**WILLOW FAMILY**		
Populus fremontii Wats. ssp. *fremontii*	Fremont cottonwood, alamo	SCWRF	N
Salix gooddingii C. Ball.	Goodding's black willow	SCWRF	N
Salix lasiolepis Benth.	arroyo willow	SCWRF	N
SCROPHULARIACEAE	**FIGWORT FAMILY**		
Cordylanthus rigidus (Benth.) Jepson ssp. *setigerus* Chuang & Heckard	thread-leaved bird's-beak	DDCSS	N
Keckiella antirrhinoides (Benth.) Straw. var. *antirrhinoides*	yellow bush penstemon	DDCSS	N
Scrophularia californica Cham. & Schldl.	California figwort	DDCSS	N
SOLANACEAE	**NIGHTSHADE FAMILY**		
Nicotiana glauca Grah.	tree tobacco	DDCSS, DIST	I
TAMARICACEAE	**TAMARISK FAMILY**		
Tamarix sp.	tamarisk	DSRS	I
VITACEAE	**GRAPE FAMILY**		
Vitis girdiana Munson	desert wild grape	SCWRF	N
ANGIOSPERMS: MONOCOTS			
CYPERACEAE	**SEDGE FAMILY**		
Carex triquetra Boott.	triangular-fruit sedge	SCWRF	N
LILIACEAE [INCL. AGAVACEAE, ALLIACEAE, ASPARAGACEAE,, ASPHODELACEAE, CONVALLARIACEAE, HOSTACEAE, HYACINTHACEAE, MELANTHIACEAE, NOLINACEAE, THEMIDACEAE]	**LILY FAMILY**		
Yucca schidigera Ortgies	Mohave yucca	DDCSS	N
POACEAE (GRAMINEAE)	**GRASS FAMILY**		
Achnatherum coronatum (Thurber) Barkworth	giant needlegrass	DDCSS	N
Avena sp.	wild oats	DDCSS	I
Bromus diandrus Roth.	ripgut grass	SCWRF, DSRS	I
Bromus hordeaceus L.	smooth brome	DDCSS, SCWRF, DSRS	I
Bromus madritensis L. ssp. *rubens* (L.) Husnot	foxtail chess	DDCSS, DIST, DSRS	I
Lamarckia aurea (L.) Moench.	goldentop	DDCSS	I

ATTACHMENT 1
PLANT SPECIES OBSERVED WITHIN
EMERY ROAD REALIGNMENT SURVEY AREA
(continued)

Scientific Name	Common Name	Habitat	Origin
Muhlenbergia rigens (Benth.) A. Hitchc.	deergrass	DDCSS	N
Nassella sp.	needlegrass	DDCSS	N
Phalaris minor Retz.	Mediterranean canary grass	DDCSS	I
Vulpia myuros (L.) var. *hirsuta* (Hackel.) Asch. & Graebr.	rattail fescue	DDCSS, SCWRF, DSRS	I
THEMIDACEAE			
Dichelostemma capitatum Alph. Wood	blue dicks	DDCSS	N

HABITATS
DIST =Disturbed Habitat
DDCSS = Disturbed Diegan Coastal Sage Scrub
DSRS = Disturbed Southern Riparian Scrub
EW = Eucalyptus Woodland
OCLOW = Open Coast Live Oak Woodland
SCWRF = Southern Cottonwood-Willow Riparian Forest
SOC = Scrub Oak Chaparral

OTHER TERMS
N = Native to locality
I = Introduced species from outside locality

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ATTACHMENT 2

ATTACHMENT #2
WILDLIFE SPECIES OBSERVED/DETECTED ON WILDLIFE SPECIES OBSERVED/DETECTED ON THE EMERY ROAD SITE

Scientific Name	Common Name	Occupied Habitat	On-site Abundance/ Seasonality (Birds Only)	Evidence of Occurrence
INVERTEBRATES (Nomenclature from Erikson and Belk 1999; Milne and Milne 1980; Mattoni 1990; and Opler and Wright 1999)				
HESPERIIDAE	**SKIPPERS**			
Erynnis funeralis	funereal duskywing	DDCSS		OBSERVED
Heliopetes ericetorum	northern white skipper	DDCSS		OBSERVED
PAPILIONIDAE	**PARNASSIANS & SWALLOWTAILS**			
Papilio eurymedon	pale swallowtail	DDCSS		OBSERVED
Papilio rutulus	western tiger swallowtail	SCWRF		OBSERVED
PIERIDAE	**WHITES & SULPHURS**			
Anthocharis cethura	Felder's or desert orangetip	DDCSS		OBSERVED
Anthocharis sara	Sara or Pacific orange-tip	DDCSS		OBSERVED
Colias sp.	unknown sulphur	DDCSS		OBSERVED
Pontia protodice	common or checkered white	DDCSS		OBSERVED
Pieris rapae	cabbage white	DDCSS		OBSERVED
LYCAENIDAE	**BLUES, COPPERS, & HAIRSTREAKS**			
Callophrys dumetorum	bramble or coastal green hairstreak	DDCSS		OBSERVED
Icaricia acmon acmon	Acmon blue	DDCSS		OBSERVED
RIODINIDAE	**METALMARKS**			
Apodemia virgulti	Behr's metalmark	DDCSS		OBSERVED
NYMPHALIDAE	**BRUSH-FOOTED BUTTERFLIES**			
Euphydryas editha quino	quino checkerspot	DDCSS		OBSERVED
Vanessa annabella	west coast lady	DDCSS		OBSERVED
Vanessa cardui	painted lady	DDCSS		OBSERVED

ATTACHMENT #2
WILDLIFE SPECIES OBSERVED/DETECTED ON WILDLIFE SPECIES OBSERVED/DETECTED ON THE EMERY ROAD SITE
(continued)

Scientific Name	Common Name	Occupied Habitat	On-site Abundance/ Seasonality (Birds Only)	Evidence of Occurrence
REPTILES (Nomenclature from Crother 2001 and Crother et al. 2003)				
IGUANIDAE	**IGUANID LIZARDS**			
Sceloporus occidentalis	western fence lizard	DDCSS		OBSERVED
Uta stansburiana	common side-blotched lizard	DDCSS		OBSERVED
TEIIDAE	**WHIPTAIL LIZARDS**			
Aspidoscelis hyperythra beldingi	Belding's orange-throated whiptail	DDCSS		OBSERVED
BIRDS (Nomenclature from American Ornithologists' Union 1998 and Unitt 2004)				
TROCHILIDAE	**HUMMINGBIRDS**			
Calypte anna	Anna's hummingbird	SCWRF, DDCSS	C / Y	OBSERVED
CORVIDAE	**CROWS, JAYS, & MAGPIES**			
Aphelocoma californica	western scrub-jay	OCLOW	C / Y	OBSERVED
Corvus corax clarionensis	common raven	NA	C / Y	OBSERVED
AEGITHALIDAE	**BUSHTIT**			
Psaltriparus minimus minimus	bushtit	SCWRF	C / Y	OBSERVED
TROGLODYTIDAE	**WRENS**			
Salpinctes obsoletus obsoletus	rock wren	DDCSS	U / Y	OBSERVED
Thryomanes bewickii	Bewick's wren	SCWRF	F / Y	OBSERVED
PARULIDAE	**WOOD WARBLERS**			
Dendroica coronata	yellow-rumped warbler	SCWRF	C / W	OBSERVED
EMBERIZIDAE	**EMBERIZIDS**			
Pipilo crissalis	California towhee	DDCSS	C / Y	OBSERVED
Pipilo maculatus	spotted towhee	SCWRF	C / Y	OBSERVED
Zonotrichia leucophrys	white-crowned sparrow	SCWRF. DDCSS	C / W	OBSERVED

ATTACHMENT #2
WILDLIFE SPECIES OBSERVED/DETECTED ON WILDLIFE SPECIES OBSERVED/DETECTED ON THE EMERY ROAD SITE
(continued)

Scientific Name	Common Name	Occupied Habitat	On-site Abundance/ Seasonality (Birds Only)	Evidence of Occurrence
FRINGILLIDAE	**FINCHES**			
Carduelis psaltria hesperophilus	lesser goldfinch	SCWRF, DDCSS	C / Y	OBSERVED
Carpodacus mexicanus frontalis	house finch	SCWRF	C / Y	OBSERVED
MAMMALS (Nomenclature from Baker et al. 2003)				
LEPORIDAE	**RABBITS & HARES**			
Sylvilagus bachmani	brush rabbit	SCWRF, DDCSS		OBSERVED
SCIURIDAE	**SQUIRRELS & CHIPMUNKS**			
Spermophilus beecheyi	California ground squirrel	DDCSS		OBSERVED
CANIDAE	**CANIDS**			
Canis latrans	coyote	NA		TRACK
PROCYONIDAE	**PROCYONIDS**			
Bassariscus astutus	ringtail	NA		CARCASS

HABITATS
DIST =Disturbed Habitat
DDCSS = Disturbed Diegan Coastal Sage Scrub
DSRS = Disturbed Southern Riparian Scrub
EW = Eucalyptus Woodland
OCLOW = Open Coast Live Oak Woodland
SCWRF = Southern Cottonwood-Willow Riparian Forest
SOC = Scrub Oak Chaparral

ABUNDANCE (based on Garrett and Dunn 1981)
C = Common to abundant; almost always encountered in proper habitat, usually in moderate to large numbers
F = Fairly common; usually encountered in proper habitat, generally not in large numbers
U = Uncommon; occurs in small numbers or only locally

SEASONALITY (birds only)
A = Accidental; species not known to occur under normal conditions; may be an off-course migrant
M = Migrant; uses site for brief periods of time, primarily during spring and fall months
S = Spring/summer resident; probable breeder on-site or in vicinity
T = Transient; uses site regularly but unlikely to breed on-site
V = Rare vagrant
W = Winter visitor; does not breed locally

ATTACHMENT #2
WILDLIFE SPECIES OBSERVED/DETECTED ON WILDLIFE SPECIES OBSERVED/DETECTED ON THE EMERY ROAD SITE
(continued)

Y = Year-round resident; probable breeder on-site or in vicinity